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# SAMPLE SIZE REQUIREMENTS AND CONSIDERATIONS FOR MULTI-LEVEL MODELS AS APPLIED TO HUMAN-MACHINE SYSTEM PERFORMANCE

DISSERTATION

Jennifer S. G. Lopez

AFIT-ENC-DS-19-S-003

DEPARTMENT OF THE AIR FORCE
AIR UNIVERSITY

*AIR FORCE INSTITUTE OF TECHNOLOGY*

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AFIT-ENC-DS-19-S-003

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Degree of Doctor of Philosophy

Jennifer S. G. Lopez, B.Sc., M.A.

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# SAMPLE SIZE REQUIREMENTS AND CONSIDERATIONS FOR MODELS TO ASSESS HUMAN-MACHINE SYSTEM PERFORMANCE

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## Abstract

Hierarchical Linear Models (HLMs), also known as multi-level models, are an extension of multiple regression analysis and can aid in the understanding of human and machine workloads of a system. These models allow for prediction and testing in systems with hierarchies of two or more levels. The complex interrelated variability of these multi-level models exists in operational settings, such as the Air Force Distributed Common Ground System Full Motion Video (AF DCGS FMV) community which is composed of individuals (Level-1), groups (Level-2), units (Level-3), and organizations (Level-4). Through the development of sample size requirements and considerations for multi-level models, this research determined necessary requirements and strategies to assess human-machine system performance based requests for statistical testing and evaluation. This research compares sample size recommendations to previous Level-2 HLM recommendations and extends recommendations to Level-3 and Level-4 HLMs based on varying effect sizes, level predictor variance, and error variance scenarios. Depending on the application, results demonstrate that sample size requirements may be smaller than what literature previously reported. Further, when sample size requirements cannot be met, this research develops and assesses re-sampling methods as a means to augment small samples for estimation. The operational community, DCGS FMV, has a small population of 1,000 and limited access to analysts. This research provides distributions based on Subject Matter Expert (SME) opinion for re-sampling methods to the DCGS FMV Level-3 and Level-4 HLMs. These findings provide a foundation on which sample size recommendations and extrapolation techniques for HLM are made. Such recommendations and techniques with SME input provide simulation based HLM assessments that can give initial recommendations with limited associated cost, analyst and researcher time,

and resources. These are initial steps towards advancing the Air Force's capabilities and mission understanding for human-machine based systems.

*To my husband and children.*

*You are my world and I love you with all heart.*

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Jennifer S. G. Lopez

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# List of Abbreviations

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| HLMs | Hierarchical Linear Models | 1 |
| FMV | Full Motion Video | 1 |
| ISR | Intelligence, Surveillance, Reconnaissance | 4 |
| PED | processing, exploitation, and dissemination | 4 |
| AFRL | Air Force Research Laboratory | 4 |
| UAVs | unmanned air vehicles | 5 |
| A2AD | anti-access, area denial | 5 |
| EEIs | Essential Elements of Information | 9 |
| ICC | intraclass correlation | 20 |
| REML | Restricted Maximum Likelihood | 23 |
| FML | Full Maximum Likelihood | 23 |

SAMPLE SIZE REQUIREMENTS AND CONSIDERATIONS FOR MODELS TO ASSESS HUMAN-MACHINE SYSTEM PERFORMANCE

# I. Introduction

The objective of this research is to aid in the understanding of the human and machine workloads of a system through the development of sample size requirements and considerations for multi-level models assessing human-machine system performance. These requirements are necessary to appropriately model and estimate the overall performance of human-machine systems of organizations at four different levels (e.g. individual, group, unit and organization). These four levels modeled simultaneously, are known as a Level-4 model and will be assessed using Hierarchical Linear Models (HLMs).

HLMs are an extension of multiple regression analysis and can analyze the complex variability inherent in the multiple levels of organizational structures simultaneously, accounting for variability both within and between levels. Within organizational studies, the response of interest (system performance) is associated to the individuals and the group to which they belong.

The complex interrelated variability of the Level-4 model exists in many settings including the small population of the Air Force Distributed Common Ground System (AF DCGS) community, which consists of approximately 6,000 analysts total. This research focuses on the Full Motion Video (FMV) analysts, a subset of the AF DCGS community. FMV analysts are a small population od less than 1,000 analysts, even a census of data may not provide enough information to adequately estimate all the parameters within the Level-4 model depending on the phenomenon. Sample size

recommendations and augmentations for a Level-4 model is paramount in the design and analysis of an appropriate study, however such guidelines do not exist.

### 1.1 Research Objectives

To model and evaluate a Level-4 HLM, such as for the AF DCGS FMV human-machine system's performance, the data requirements and collection for the design and implementation must first be determined. These requirements are addressed by three primary objectives, which are:

**Research Objective 1.** Determine the sample size requirements for up to a Level-4 Hierarchical Linear Model (HLM).

Organizational structures of interest in this research may be modeled with 2-, 3-, or 4- levels. Although some recommendations exist for Level-2 HLMs, they are mostly computationally estimated. This research derives the formulas to create sample size criteria under a variety of scenarios for Level-2, Level-3 and Level-4 HLMs. Results for Level-2 HLMs are compared to some existing literature and both Level-3 and Level-4 HLM results add to the non-existing literature.

In order to accomplish the first primary objective, this research assesses a Level-4 model under the standard assumption of normally distributed responses. Under various model conditions at all levels, the sample size requirements for each level of the Level-4 model is determined and based upon criteria of adequate power for parameter estimation.

**Research Objective 2.** Develop and assess re-sampling based methods as a means to augment small samples for estimation in Level-2 and Level-3 HLMs.

When sample size criteria is not met, it is plausible that the existing data may be augmented to generate a sample large enough for estimation. Assessment of a re-sampling method will be accomplished by determining the effects of distribution

misspecification as a byproduct of the extrapolation of a small sample to meet sample size requirements. Similar to Research Objective 1, Level-2 and Level-3 recommendations will be determined. Monte Carlo simulations will be constructed to examine the effects of re-sampling on parameter estimation and model specification for each of the HLM levels considered (e.g. group and unit) and the overall system performance. Note that Level-4 HLM will be addressed through the specific application of interest to this research.

**Objective 3.** Demonstrate an application to the notional example of the AF DCGS community that will focus on utilizing HLM system augmentation of Research Objective 2 in order to explore the effects of autonomy on the AF DCGS community Level-3 and Level-4 HLMs. This work will utilize and extend the recommendations and criteria established in Research Objective 1 and Research Objective 2.

The AF DCGS FMV community application will incorporate known Level-4 HLM predictor data with simulated novice versus expert analyst distribution error variance terms. This will help to determine how sensitive the system is to automation-modifications when comparing novice versus expert analysts in a DCGS FMV Level-3 and Level-4 HLM.

The objectives of this research provide a foundation to develop sample size requirements and considerations in order to evaluate measures of merit with respect to the overall performance of the human and machine workload of a system across different levels of an organizational structure, especially for small populations. HLM, the statistical modeling tool and technique, is proposed as the means to develop this analysis because it can be applied to the nested organizational structures in order to quantify the interrelated effects of each level of the organization on system performance. Research Objective 1 will define appropriate sample size requirements when designing a

Level-4 HLM and the results of Research Objective 2 will provide guidance as to the usefulness of re-sampling in order to meet necessary sample size requirements for a Level-2 and Level-3 HLM. These objectives together with a Level-4 applied application will generally be used to inform the analysis for HLMs with small sample sizes, and the HLM application will describe the functionality of the AF DCGS community notional example with respect to appropriate processes of merit.

### 1.2 Air Force Need

The Air Force Chief Scientist's 2010 S&T Vision "Technology Horizons" identifies key science and technology focus areas needed for 2030 [5]. The need for access to military systems is vital because future operational missions will consist of longer durations, overly highly populated areas, in dynamic environments and involve communication disruptions. Therefore, improving Intelligence, Surveillance, Reconnaissance (ISR) is essential. The manpower costs and resources associated with processing, exploitation, and dissemination (PED) of ISR data is significant and will continue to increase. Despite uncertainties in ISR future budget and funding, especially with respect to manpower, the Air Force must learn to operate in an environment with limited resources. To improve mission effectiveness with reduced manpower, the 2010 "Technology Horizon" suggests the need for autonomous systems that will improve the situational awareness of analysts (i.e. decision-makers) and enhance their understanding and knowledge of the mission.

Some literature suggests automation and autonomy are synonyms [3, 12]. To distinguish automation from autonomy, the Air Force Research Laboratory (AFRL) Autonomy Science and Technology Strategy of 2013 [4], defines automation and autonomy as follows:

> Automation: The system functions with no/little human operator involvement; however, the system performance is limited to the specific actions it has been designed to do. Typically these are well-defined tasks that have predetermined responses (i.e., simple rule-based responses).
>
> Autonomy: Systems which have a set of intelligence-based capabilities that allow it to respond to situations that were not pre-programmed or anticipated in the design (i.e., decision-based responses). Autonomous systems have a degree of self-government and self-directed behavior (with the human's proxy for decisions).

In a static or predictive environment, automation and autonomy can be used interchangeably to analyze a fixed mission because the tasks are well-defined. However, the AF operates in complex and contested environments with complex machines and systems such as unmanned air vehicles (UAVs). For UAVs to operate in this environment not only is a pilot and sensor operator needed, but many other resources are required, such as: manning, administration, maintenance, and PED.

Current UAV success is partially attributed to having access to continuous and mostly uninterrupted imagery and data. Although, this is not the case for possible future operations because future operations need to be able to occur in dynamic, anti-access, area denial (A2AD) environments across multiple domains such as: air, land, and cyber. To meet future needs and to operate effectively, human-machine systems, such as UAVs, must be optimized to maintain a high caliber of mission performance. An optimization approach to understand and utilize autonomous systems is to increase use of our resources while decreasing cost. These systems will not replace the analysts, but will have the capability and freedom to self-direct with the analysts as a proxy for decisions to achieve mission objectives.

Thus, research in this area will be conducted through the use of 'self-governing' autonomous systems and validated by assessing the system's efficiency both prior to and after the automation for both the novice and expert analysts. In addition, this research will inform the Autonomy Science & Technology (S&T) Challenges for DoD

and Industry Partners [3, 4] by enabling and calibrating trust between human and machine; creating an environment for flexible and effective decision making; advancing data-driven analytics; and expanding test, evaluation, validation, and verification. These improvements will be realized in a cost effective simulated environment across multiple operational domains and incorporate scenario-based testing. Providing the appropriate modeling and design for data collection and analysis becomes paramount, and sampling characteristics for the construction of appropriate modeling are required. The research objectives proposed in this dissertation are the first step towards achieving this goal.

The remainder of this dissertation is outlined as follows. Chapter II is a review of the statistical modeling tool and technique, HLM, and an overview of current sample size studies and requirements for HLM models. Chapter III presents the Level-2, Level-3, and Level-4 HLM general model, assumptions, and derives the sample size requirements for a Level-4 HLM with a single predictor at all levels (individual, group, unit, and organization). As a byproduct, requirements for a Level-2 and Level-3 model with equally weighted single predictor at Level 2 and 3 are proposed. Chapter IV presents the effects of re-sampling based methods for up to a Level-3 HLM and provides recommendations on when such techniques are appropriate. Chapter V gives a notional Level-4 HLM example. Finally, Chapter VI provides a final discussion and and future work.

# II. Background

This section reviews the structure of Hierarchical Linear Models (HLMs) and current sample size guidelines for design considerations. To develop the requirements and considerations for models, this research proposes using HLMs to analyze a system's performance. The following sections describe the HLMs and general properties needed to expand and complete the proposed research objective.

## 2.1 Hierarchical Linear Model (HLM)

Hierarchical Linear Models (HLMs), also known as multilevel models, are an extension of regression analyses. They are used to analyze nested data sets with complex patterns of variability and may be used to analyze relations among different levels (i.e., Level-1, Level-2, Level-3, and Level-4). In HLMs, the data are divided into different levels in which the individuals, or subjects, at Level-1 may be dependent because they are nested into larger clusters, called groups. The use of HLMs to assess nested data is preferred over standard multivariate analysis because the dependency of the data violates the assumption of multivariate independence of all observations [10, 14, 15, 17, 19, 26, 31, 34, 42, 37, 35]. Further, modeling all levels simultaneously makes for efficient estimation of the effects (and variability) associated within and between each level of the HLM.

Notationally, to be consistent with the literature, the lowest level, Level-1, represents the individuals or subjects, Level-2 represents the group (i.e. cluster of individuals), Level-3 represents the unit (i.e. cluster of groups), and Level-4 represents the organization (i.e. cluster of units). As the number of levels increases, the higher levels in which subjects are nested are denoted with subsequent level numbering such as Level-1, Level-2, Level-3, Level-4, and so on.

HLMs allow researchers to simultaneously study the effects of group level variables and individual level variables. That is, HLMs measure how variables at one level affect relations occurring at another. These types of models consider error terms at each level that normal regression does not. These error terms are no longer independent across levels, but nested. Each level of nested data is associated with variability that has a distinct interpretation and affects the model parameter estimates [45]. For example, a school district's math score can be thought of as the following Level-4 HLM (Figure 1): student math scores (Level-1) are nested within classroom math scores, classroom math scores (Level-2) are nested within school math scores, and school math scores (Level-3) are nested within the district math score (Level-4).

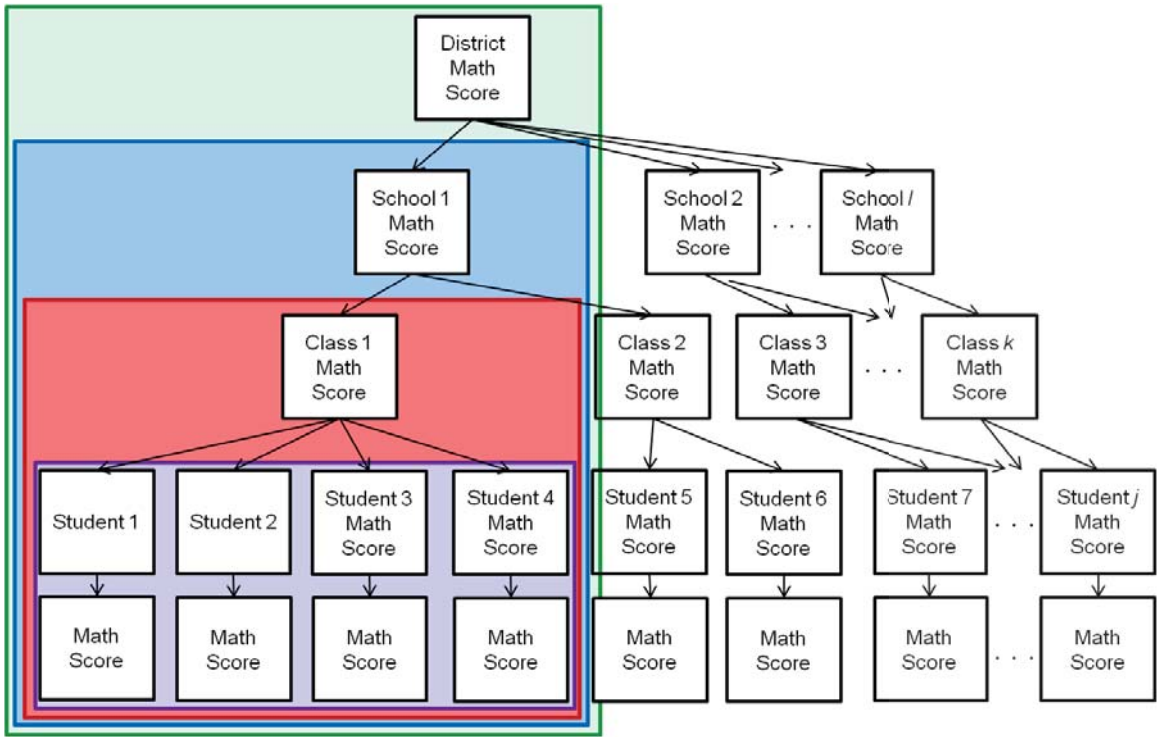


**Figure 1. Conceptual image of HLM Level-4 school district math scores**

Conceptually, it is useful to think of HLMs as a hierarchical system of regression equations. Although, HLM is an extension of multiple linear regression, the model is more complicated. The predictors or explanatory variables, are measured at all

levels (i.e. Level-1, Level-2, Level-3 or Level-4), the number of parameters is larger, cross-level interactions must be considered, and there are one or more error terms at each level.

The cross-level interaction terms allow researchers to test hypotheses about how variables measured at one level affect relations occurring at another level. For example, within social research studies of schools, a researcher might be interested in whether there is an effect between student math scores (i.e. Level-1) and a teacher's education level (e.g. Level-2), or whether there is an effect between a student's math score (i.e. Level-1) and whether the school offers private or public education (i.e. Level-3).

These relations can be represented pictorially through the diagrams of path models [44]. Path, or structural, models are graphical representations of the equations that relate dependent variables to their independent explanatory variables. These models allow researchers to visually see theories or hypotheses, and physically manipulate the models to test changes. Underlying the path model is a system of equations, also known as the measurement model.

Path models are composed of two types of variables (manifest and latent) and directional arrows (both single- and double- headed). Manifest variables, graphically denoted by squares and rectangles, are observed variables that are directly measured. Whereas, latent variables, graphically denoted by circles and ovals, are unobserved variables that are indirectly measured. That is, latent variables are inferred by the responses of indicators. Indicators are manifest variables used to measure the latent variables. The indicators must clearly measure the same underlying construct (i.e. be correlated with one another) and have been validated through previous research. For example in Figure 2, within the PED, the possible indicator variables (number of details, number of Essential Elements of Information (EEIs) verbalized, and time from

event occurrence to spoken) measure workload for the Eyes On analyst (a position within the PED cell of DGS-SOF, which is discussed in detail in Chapter V). Other examples of indicator variables for the Eyes On analyst are objective (e.g. number of units produced per hour) and subjective measures (e.g. responses to a questionnaire).

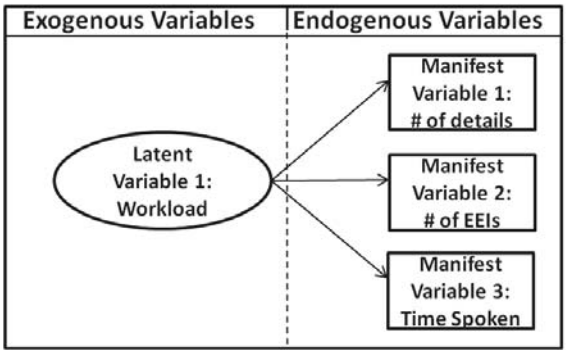


**Figure 2. Example path model of possible endogenous variables that measure the exogenous variable (i.e. indicator variables) workload for the Eyes On Analysts.**

The model representation for between levels, also known as a between model, is defined by single- and double- headed arrows. Single-headed arrows represent the impact of one variable on another. That is, single-headed arrows point to endogenous (dependent) variables, variables whose variability is predicted to be casually affected by other variables in the model. Independent variables, also known as exogenous variables, are variables that are influenced only by external factors that lie outside of the casual model. Therefore, single-headed arrows do not point to exogenous variables, unless referring to residual error.

A double-headed arrow represents a bidirectional casual relationship that makes no hypothesis as to which variable influences which. In other words, a double headed-arrow connecting two variables represents a covariance or a correlation between the variables.

Within path models, the independent variables at a lower level (e.g. Level-2) are represented as dependent variables at the next level (e.g. Level-3). Pictorially, they are circles and ovals at the next level, instead of the prior squares and rectangles.

That is, manifest variables at a lower level become latent variables at the higher level. This is illustrated in the path models and shown in the measurement models of the next section.

## 2.2 General Level-4 Hierarchical Linear Model (HLM) Measurement Model

Each of the four levels considered with multiple predictors has an associated HLM diagram and measurement model. This section outlines the associated HLM diagrams and measurement models for each level of the Level-4 HLM by building the model one level at a time. In general, Level-1 predictors, $A_{ijkl}$, vary such that $i = 1, ..., n$, Level-2 predictors, $X_{ijkl}$, vary such that $j = 1, ..., g$, Level-3 predictors, $W_{ijkl}$, vary such that $k = 1, ..., h$, and Level-4 predictors, $Z_{ijkl}$, vary such that $l = 1, ..., f$.

### General Level-1 HLM Measurement Model for $n$ Individual Predictors at Level-1.

A Level-1 structural model, shown in Figure 3, has $n$ manifest exogenous variables (denoted $A_{1jkl}$, $A_{2jkl}$, ..., $A_{njkl}$) and one response endogenous variable (denoted $Y_{ijkl}$). $Y_{ijkl}$ is measured by the linear combination of coefficients $\pi_{1jkl}, \pi_{2jkl}, ..., \pi_{njkl}$ and manifest variables $A_{1jkl}$, $A_{2jkl}$, ..., $A_{njkl}$, represented by single-headed arrows. The manifest variables $A_{1jkl}$, $A_{2jkl}$, ..., $A_{njkl}$ are correlated and the correlation is represented by double-headed arrows.

Within each individual unit $i$, the general Level-1 HLM models the individual unit of interest as a function of individual level predictors plus a random individual-level

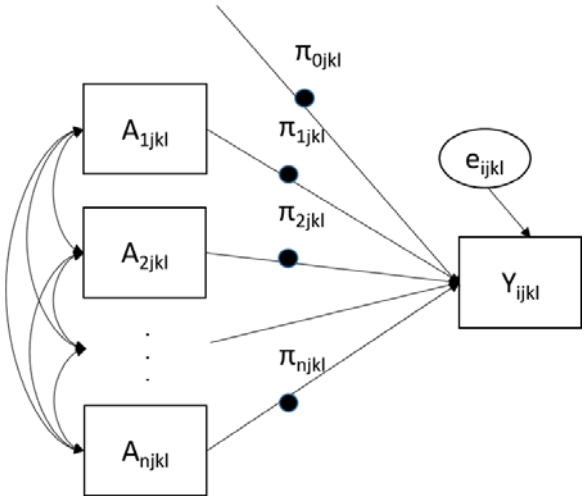


**Figure 3. General Level-1 HLM model for $n$ individual predictors such that: the manifest variables $A_{1jkl}, A_{2jkl}, ..., A_{njkl}$ are correlated, $A_{1jkl}, A_{2jkl}, ..., A_{njkl}$ measure $Y_{ijkl}$, $Y_{ijkl}$ has an associated error (represented by a single arrow in the diagram), and each manifest variable has a coefficient represented as $\pi_{1jkl}, \pi_{2jkl}, ..., \pi_{njkl}$ in the diagram and measurement model.**

error. That is, the Level-1 HLM for $n$ individual predictors is:

$$\begin{aligned} Y_{ijkl} &= \pi_{0jkl} + \pi_{1jkl}A_{1jkl} + \pi_{2jkl}A_{2jkl} + ... + \pi_{njkl}A_{njkl} + e_{ijkl} \\ &= \pi_{0jkl} + \sum_{i=1}^{n} \pi_{ijkl}A_{ijkl} + e_{ijkl} \end{aligned} \tag{1}$$

where:

$Y_{ijkl}$ is the outcome variable of individual $i$, in group $j$, unit $k$, and organization $l$;

$\pi_{0jkl}$ is the intercept for group $j$, unit $k$, and organization $l$;

$A_{ijkl}$ are the $i = 1, ..., n$ Level-1 predictors (individual-level explanatory variables);

$\pi_{ijkl}$ are the Level-1 coefficients that indicate the direction and strength of association between each Level-1 predictor, $A_{ijkl}$, and the outcome in group $jkl$;

$e_{ijkl}$ is the Level-1 random effect that represents the deviation of individual $ijkl$ from the predicted value based on the individual-level model. Such that: $e_{ijkl} \sim$

$N(0, \sigma^2_{e_{ijkl}})$.

**General Level-2 HLM Measurement Model for $n$ Individual Predictors at Level-1 and $g$ Group Predictors at Level-2.**

The second level of an HLM shown in Figure 4, has $g$ manifest exogenous variables (denoted $X_{ijkl}$ such that $j = 1, 2, ..., g$) and $ng$ response endogenous variable (denoted $\pi_{1jkl}$, $\pi_{2jkl}, ..., \pi_{njkl}$). The response variables are measured by manifest variable $X_{ijkl}$, and represented by single-headed arrows, such that $X_{i1kl}$, $X_{i2kl}$, ..., $X_{igkl}$ are correlated. Each manifest variable has a coefficient denoted as $\beta_{00kl}, \beta_{01kl}, ..., \beta_{ngkl}$.

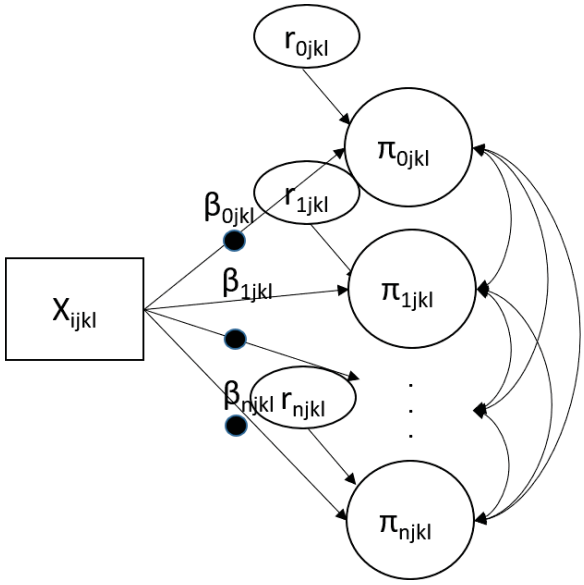


**Figure 4. Level-2 HLM model for $n$ individual predictors on Level-1 and $g$ group predictors on Level-2 such that: the manifest variables $X_{i1kl}, X_{i2kl}, ...X_{igkl}$, illustrated as $X_{igkl}$, are correlated (not shown), $X_{i1kl}, X_{i2kl}, ..., X_{igkl}$ measure $\pi_{1jkl}, ..., \pi_{njkl}$, and each manifest variable has a coefficient represented as $\beta_{0jkl}, \beta_{1jkl}, ..., \beta_{njkl}$ in the diagram.**

Each of the Level-1 coefficients, $\pi_{ijkl}$, defined in the Level-1 HLM of Equation 1, becomes an outcome variable in the Level-2 HLM measurement model where:

$$\pi_{0jkl} = \beta_{00kl} + \beta_{01kl}X_{i1kl} + \beta_{02kl}X_{i2kl} + ... + \beta_{0gkl}X_{igkl} + r_{0jkl},$$

$$\pi_{1jkl} = \beta_{10kl} + \beta_{11kl}X_{i1kl} + \beta_{12kl}X_{i2kl} + ... + \beta_{1gkl}X_{igkl} + r_{1jkl},$$

$$\vdots$$

$$\pi_{njkl} = \beta_{n0kl} + \beta_{n1kl}X_{i1kl} + \beta_{n2kl}X_{i2kl} + ... + \beta_{ngkl}X_{igkl} + r_{njkl},$$

such that:

$$\pi_{ijkl} = \beta_{i0kl} + \sum_{j=1}^{g} \beta_{ijkl}X_{ijkl} + r_{ijkl} \tag{2}$$

where:

$\beta_{i0kl}$ is the intercept for unit $k$ in modeling the team effect $\pi_{ijkl}$;

$X_{ijkl}$ are the $j = 1, ..., g$ Level-2 predictors (group-level explanatory variable);

$\beta_{.jkl}$ are the Level-2 coefficients that indicate the direction and strength of association between each Level-2 predictor, $X_{ijkl}$, and $\pi_{.jkl}$;

$r_{ijkl}$ is the Level-2 random effect that represents the deviation of group $jkl$'s Level-1 coefficient, $\pi_{.jkl}$, from its predicted value based on the group-level model. Assume that the $r_{ijkl}$'s are normally distributed such that: $r_{ijkl} \sim N(0, \sigma^2_{r_{ijkl}})$.

By substitution of Equation 2 into Equation 1, the combined Level-2 HLM for $n$ individual predictors on Level-1 and $g$ predictors on Level-2 is

$$\begin{aligned} Y_{ijkl} = {} & (\beta_{00kl} + \beta_{01kl}X_{1kl} + \beta_{02kl}X_{2kl} + ... + \beta_{0gkl}X_{gkl} + r_{0jkl}) \\ & + (\beta_{10kl} + \beta_{11kl}X_{.1kl} + \beta_{12kl}X_{.2kl} + ... + \beta_{1gkl}X_{.gkl} + r_{1jkl})A_{1jkl} \\ & + ... + (\beta_{n0kl} + \beta_{n1kl}X_{.1kl} + \beta_{n2kl}X_{.2kl} + ... + \beta_{ngkl}X_{.gkl} + r_{njkl})A_{njkl} + e_{ijkl} \end{aligned} \tag{3}$$

such that: $Cov(e_{ijkl}, r_{ijkl}) = 0$, $\forall ijkl$. Note that the product of $A_{ijkl}$'s and $X_{ijkl}$'s represent the cross-level interactions.

**General Level-3 HLM Measurement Model for $n$ Individual Predictors at Level-1, $g$ Group Predictors at Level-2, and $h$ Unit Predictors at Level-3.**

The 3rd level of an HLM, shown in Figure 5, has $h$ manifest exogenous variables (denoted $W_{ijkl}$ such that $k = 1, 2, ..., h$) and $ngh$ response endogenous variable (denoted $\beta_{00kl}$, $\beta_{01kl}$, ..., $\beta_{ngkl}$). The response variables are measured by manifest variable $W_{ijkl}$, and represented by single-headed arrows, such that $W_{ij1l}$, $W_{ij2l}$, ..., $W_{ijhl}$ are correlated. Each manifest variable has a coefficient denoted $\gamma_{000l}, \gamma_{001l}, ..., \gamma_{nghl}$.

Each of the Level-2 coefficients, $\beta_{..kl}$, defined in the general Level-2 HLM of Equation 3, becomes an outcome variable in the Level-3 HLM measurement model where:

$$\begin{aligned}
\beta_{00kl} &= \gamma_{000l} + \gamma_{001l}W_{ij1l} + \gamma_{002l}W_{ij2l} + ... + \gamma_{00hl}W_{ijhl} + u_{00kl}, \\
\beta_{01kl} &= \gamma_{010l} + \gamma_{011l}W_{ij1l} + \gamma_{012l}W_{ij2l} + ... + \gamma_{01hl}W_{ijhl} + u_{01kl}, \\
&\vdots \\
\beta_{ngkl} &= \gamma_{ng0l} + \gamma_{ng1l}W_{ij1l} + \gamma_{ng2l}W_{ij2l} + ... + \gamma_{nghl}W_{ijhl} + u_{ngkl},
\end{aligned}$$

such that:

$$\beta_{ijkl} = \gamma_{ij0l} + \sum_{k=1}^{h} \gamma_{ijkl}W_{ijkl} + u_{ijkl} \tag{4}$$

where:

$\gamma_{ij0l}$ is the overall intercept in modeling the unit effect $\beta_{ijkl}$;

$W_{ijkl}$ are the $k = 0, 1, ..., h$ Level-3 predictors (unit-level explanatory variable);

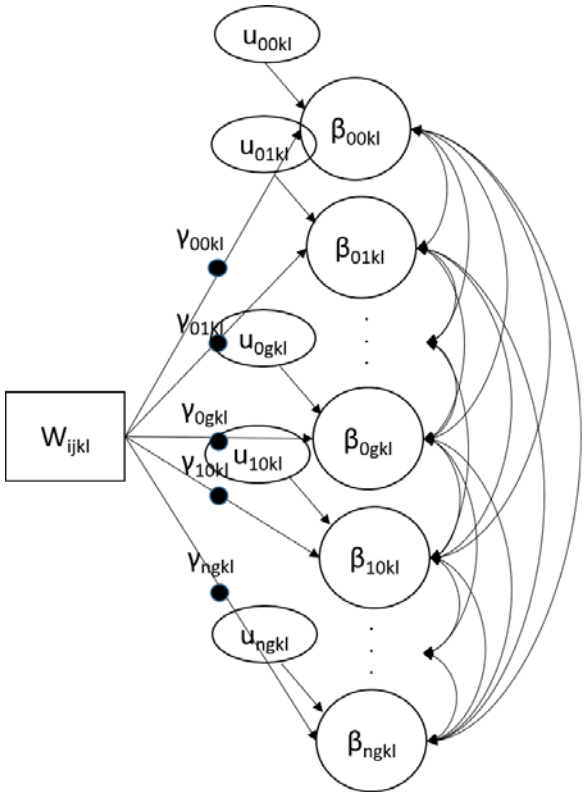


**Figure 5. Level-3 HLM model for $n$ individual predictors on Level-1, $g$ group predictors on Level-2, and $h$ unit predictors on Level-3 such that: the manifest variables $W_{ij11}, W_{ij21}, ...W_{ijh1}$, illustrated as $W_{ijk1}$, are correlated (not shown), $W_{ij11}, W_{ij21}, ..., W_{ijh1}$ measure $\beta_{00kl}, \beta_{01kl}, ..., \beta_{ngkl}$, and each manifest variable has a coefficient $\gamma_{00kl}, \gamma_{01kl}, ..., \gamma_{ngkl}$ in the diagram.**

$\gamma_{ijkl}$ are the Level-3 coefficients that indicate the direction and strength of association between each Level-3 predictor, $W_{ijkl}$, and $\beta_{ijkl}$;

$u_{ijkl}$ are the Level-3 random effect that represents the deviation of unit $k$'s Level-2 coefficient, $\beta_{ijkl}$, from its predicted value based on the unit-level model. Assume that the $u_{ijkl}$'s are normally distributed such that: $u_{ijkl} \sim N(0, \sigma^2_{u_{ijkl}})$.

By substitution of Equation 4 into Equation 3, the Level-3 HLM with $n$ individual predictors on Level-1, $g$ group predictors on Level-2, and $h$ unit predictors on Level-3 is given by:

$$
\begin{aligned}
Y_{ijkl} = &((\gamma_{000l} + \gamma_{001l}W_{1l} + \gamma_{002l}W_{2l} + ... + \gamma_{00hl}W_{hl} + u_{00kl}) \\
&+ (\gamma_{010l} + \gamma_{011l}W_{1l} + \gamma_{012}W_{2l} + ... + \gamma_{01hl}W_{hl} + u_{01kl})X_{1kl} + ... \\
&+ (\gamma_{0g0l} + \gamma_{0g1l}W_{1l} + \gamma_{0g2l}W_{2l} + ... + \gamma_{0ghl}W_{hl} + u_{0gkl})X_{nkl} + r_{0jkl}) \\
&+ \sum_{k=1}^{g}\sum_{j=1}^{g}\sum_{i=1}^{n}((\gamma_{ij0l} + \gamma_{ijk}W_{.1k} + \gamma_{ijk}w_{.2k} + ... + \gamma_{ijk}W_{hl})X_{jkl} + r_{ijkl})A_{ijkl} + e_{ijkl},
\end{aligned}
\tag{5}
$$

such that: $Cov(e_{ijkl}, r_{ijkl}) = Cov(e_{ijkl}, u_{ijkl}) = Cov(r_{ijkl}, u_{ijkl}) = 0$, $\forall ijkl$. Note that the product of $A_{ijkl}$'s, $X_{ijkl}$'s, and $W_{..kl}$'s represent the cross-level interactions.

**General Level-4 HLM Measurement Model for $n$ Individual Predictors at Level-1, $g$ Group Predictors at Level-2, $h$ Unit Predictors on Level-3, and $f$ Organization Predictors at Level-4.**

The 4th level of an HLM, shown in Figure 6, has $f$ manifest exogenous variables (denoted $Z_{ijkl}$ such that $l = 1, 2, ..., f$) and $nghf$ response endogenous variables (denoted $\gamma_{000l}, \gamma_{001l}, ..., \gamma_{nghl}$. The response variables are measured by manifest variable $Z_{ijkl}$, represented by single headed arrows, such that $Z_{ijk1}, Z_{ijk2}, ..., Z_{ijkf}$ are correlated. Each manifest variable has a coefficient denoted $\delta_{0000}, \delta_{0001}, ..., \delta_{nghf}$.

Each of the Level-3 coefficients, $\gamma_{ijkl}$, defined in the general Level-3 HLM of Equation 5, becomes an outcome variable in the Level-4 HLM measurement model where:

$$
\begin{aligned}
\gamma_{000l} &= \delta_{0000} + \delta_{0001}Z_{ijkl} + \delta_{0002}Z_{ijk2} + ... + \delta_{000f}Z_{ijkf} + v_{000l}, \\
\gamma_{001l} &= \delta_{0010} + \delta_{0011}Z_{ijk1} + \delta_{0012}Z_{ijk2} + ... + \delta_{001f}Z_{ijkf} + v_{001l}, \\
&\vdots \\
\gamma_{nghl} &= \delta_{ngh0} + \delta_{ngh1}Z_{ijk1} + \delta_{ngh2}Z_{ijk2} + ... + \delta_{nghf}Z_{ijkf} + v_{nghl},
\end{aligned}
$$

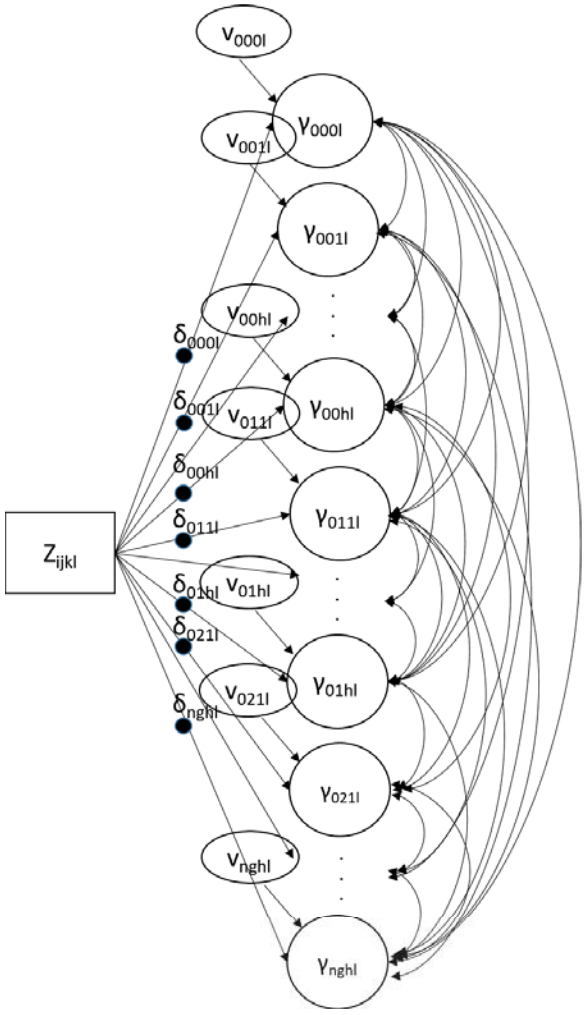


**Figure 6. General Level-4 HLM diagram for $n$ individual predictors on Level-1, $g$ group predictors on Level-2, $h$ unit predictors on Level-3, and $f$ organization predictors on Level-4 such that: the manifest variables $Z_{ijk1}, Z_{ijk2}, ...Z_{ijkf}$, illustrated as $Z_{ijkl}$, are correlated (not shown), $Z_{ijk1}, Z_{ijk2}, ..., Z_{ijkf}$ measure $\gamma_{000l}, \gamma_{001l}, ..., \gamma_{nghl}$, and each manifest variable has a coefficient $\delta_{000l}, \delta_{001l}, ..., \delta_{nghl}$ in the diagram.**

such that:

$$\gamma_{ijkl} = \delta_{ijk0} + \sum_{l=1}^{f} \delta_{ijkl} Z_{ijkl} + v_{ijkl} \tag{6}$$

where:

$\delta_{ijk0}$ is the intercept for organization $l$ in modeling the unit effect $\gamma_{ijkl}$;

$Z_{ijkl}$ are the $l = 0, 1, ..., f$ Level-4 predictors (organization-level explanatory variable);

$\delta_{ijkl}$ are the Level-4 coefficients that indicate the direction and strength of association between each Level-4 predictor, $Z_{ijkl}$, and the $\gamma_{ijkl}$;

$v_{ijkl}$ are the Level-4 random effect that represents the deviation of organization $l$'s Level-3 coefficient, $\gamma_{ijkl}$, from its predicted value based on the organization-level model. Assume that the $v_{ijkl}$'s are normally distributed such that: $v_{ijkl} \sim N(0, \sigma^2_{v_{ijkl}})$.

By substitution of Equation 6 into Equation 5, the Level-4 HLM with $n$ individual predictors on Level-1, $g$ group predictors on Level-2, $h$ unit predictors on Level-3, and $f$ organizational predictors on Level-4, is given by:

$$
\begin{aligned}
Y_{ijkl} = & (((\delta_{0000} + \delta_{0001}Z_{ijk1} + \delta_{0002}Z_{ijk2} + ... + \delta_{000f}Z_{ijkf} + v_{000l}) \\
& + (\delta_{0010} + \delta_{0011}Z_{ijk1} + \delta_{0012}Z_{ijk2} + ... + \delta_{001f}Z_{ijkf} + v_{001l})W_{ij1l} + ... \\
& + (\delta_{00h0} + \delta_{00h1}Z_{ijk1} + \delta_{00h2}Z_{ijk2} + ... + \delta_{00hf}Z_{ijkf} + v_{00hl})W_{ijhl} + u_{00kl}) \\
& + ((\delta_{0100} + \delta_{0101}Z_{ijk1} + \delta_{0102}Z_{ijk2} + ... + \delta_{010f}Z_{ijkf} + v_{010l}) + ... \\
& + (\delta_{0gh0} + \delta_{0gh1}Z_{ijk1} + \delta_{0gh2}Z_{ijk2} + ... + \delta_{0ghf}Z_{ijkf} + v_{0ghl})W_{ijhl} + u_{0gkl})X_{ijkl} + r_{0jkl}) \\
& + \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}(((\delta_{ijk0} + \delta_{ijk1}Z_{ijkl} + \delta_{ijk2}Z_{ijk2} + ... + \delta_{ijkl}Z_{ijkl})W_{ijkl} \\
& + ... + u_{ijkl})X_{ijkl} + r_{ijkl})A_{ijkl} + e_{ijkl}
\end{aligned}
\tag{7}
$$

such that:

$Cov(e_{ijkl}, v_{ijkl}) = Cov(e_{ijkl}, u_{ijkl}) = Cov(e_{ijkl}, r_{ijkl}) = Cov(r_{ijkl}, v_{ijkl}) = Cov(r_{ijkl}, u_{ijkl}) = Cov(u_{ijkl}, v_{ijkl}) = 0, \forall ijkl$. Note that the product of $A_{ijkl}$'s, $X_{ijkl}$'s, $W_{ijkl}$'s, and $Z_{ijkl}$'s represent the cross-level interactions.

**Intraclass Correlation.**

The accuracy of the parameter estimates and the amount of dependency within HLMs is measured through the intraclass correlation (ICC), denoted $\rho$ [16]. For a Level-2 HLM, the ICC is the expected correlation between any two randomly chosen individuals in the same group [19]. To determine if additional levels within the HLM are useful to assess a response variable of interest, the variance for a given level is partitioned into within- and between- cluster components. Formally, the ICC is defined as the proportion of individual-level and group-level variance compared to the total variance. That is, the ICC values for a Level-2 HLM are as follows:

Proportion of variance of individuals for a Level-2 HLM (Level-1)

$$ICC2_1 = \sigma^2_{e_{ij}}/(\sigma^2_{e_{ij}} + \sigma^2_{r_{ij}}) \tag{8}$$

Proportion of variance among groups for a Level-2 HLM (Level-2)

$$ICC2_2 = \sigma^2_{r_{ij}}/(\sigma^2_{e_{ij}} + \sigma^2_{r_{ij}}) \tag{9}$$

such that the within-variance and between-variance are denoted $\sigma^2_{e_{ij}}$ and $\sigma^2_{r_{ij}}$, respectively. For a Level-2 HLM, if there is little or no variation in the outcome between Level-2 groups, then there is no need for Level-2 variables in the HLM analysis. In general, the ICC ranges from 0 to 1 such that larger values represent higher correlation. Depending on how ICC is calculated, in general, a low ICC close to zero implies that individuals (Level-1) from the same group (Level-2) are non-homogeneous. A high ICC close to 1 indicates there is a strong relationship between individuals within the same group. That is, the groups are relatively homogeneous.

Although ICC values are study and application dependent, in general, previous Level-2 HLM analyses have considered ICC values to be low, medium, and high for 0.1,

0.3, and 0.5, or 0.7, respectively [6, 27, 28, 42]. Using these assumed ICC values and a fixed Level-1 variance distribution, denoted $\sigma^2_{e_{ij}}$, the Level-2 variance distribution, $\sigma^2_{r^2_{ij}}$, can be determined for low, medium, and high ICC. This calculation is useful for sample size calculations. In practice, variances are observed and ICCs are calculated from these observed values.

Because the ICC indicates the proportion of the variance explained by the level of interest, ICC values can be captured for each level in an HLM. Therefore, the Level-2 HLM ICC formula can be extended to Level-3 and Level-4 HLMs. For greater than Level-2 ICC calculations, such as Level-3, if the Level-2 HLM variables are not significant, but the Level-3 variables are, then simple linear regression will not work and the need fo rmulti-level modeling is necessary. The ICC values for a Level-3 HLM are as follows:

Proportion of variance of individuals for a Level-3 HLM (Level-1)

$$ICC3_1 = \sigma^2_{e_{ijk}}/(\sigma^2_{e_{ijk}} + \sigma^2_{r_{ijk}} + \sigma^2_{u_{ijk}}) \tag{10}$$

Proportion of variance among groups for a Level-3 HLM (Level-2)

$$ICC3_2 = \sigma^2_{r_{ijk}}/(\sigma^2_{e_{ijk}} + \sigma^2_{r_{ijk}} + \sigma^2_{u_{ijk}}) \tag{11}$$

Proportion of variance among units for a Level-3 HLM (Level-3)

$$ICC3_3 = \sigma^2_{u_{ijk}}/(\sigma^2_{e_{ijk}} + \sigma^2_{r_{ijk}} + \sigma^2_{u_{ijk}}) \tag{12}$$

The ICC values for a Level-4 HLM are as follows:

Proportion of variance of individuals for a Level-4 HLM (Level-1)

$$ICC4_1 = \sigma^2_{e_{ijkl}}/(\sigma^2_{e_{ijkl}} + \sigma^2_{r_{ijkl}} + \sigma^2_{u_{ijkl}} + \sigma^2_{v_{ijkl}}) \tag{13}$$

Proportion of variance among groups for a Level-4 HLM (Level-2)

$$ICC4_2 = \sigma^2_{r_{ijkl}}/(\sigma^2_{e_{ijkl}} + \sigma^2_{r_{ijkl}} + \sigma^2_{u_{ijkl}} + \sigma^2_{v_{ijkl}}) \tag{14}$$

Proportion of variance among units for a Level-4 HLM (Level-3)

$$ICC4_3 = \sigma^2_{u_{ijkl}}/(\sigma^2_{e_{ijkl}} + \sigma^2_{r_{ijkl}} + \sigma^2_{u_{ijkl}} + \sigma^2_{v_{ijkl}}) \tag{15}$$

Proportion of variance among organizations for a Level-4 HLM (Level-4)

$$ICC4_4 = \sigma^2_{v_{ijkl}}/(\sigma^2_{e_{ijkl}} + \sigma^2_{r_{ijkl}} + \sigma^2_{u_{ijkl}} + \sigma^2_{v_{ijkl}}) \tag{16}$$

This research used the ICC definition based on proportion of variance, as given in Equation 8 to 16, to capture the ICC values, which is most common to HLMs. However, the ICCs can be calculated differently and each form of ICC has distinct assumptions and interpretations. Based on the type of study, McGraw and Wong (1996), outlined questions to best determine which ICC to use [32]. The ICC forms detailed in [32] are those calculated within software such as SPSS [43].

In practice, the ICC would not be known prior to a study. Therefore, in this research the error variance distribution terms were identified for each level of interest. For example, for a Level-2 HLM analysis both $\sigma^2_{e_{ij}}$ and $\sigma^2_{r_{ij}}$ were assumed and used to calculate the ICC. All ICC values within this research were found to be moderate (between 0.33 to 0.50) and comparable to previous research.

**Estimation of Maximum Likelihood (ML).**

In HLM analysis, estimation of the model parameters, both regression coefficients and variance terms, are typically obtained by maximum likelihood (ML). ML estimation methods are commonly used in HLM analysis because they are robust against model violations (e.g. non-normal errors) with large enough sample sizes and identify values that are most consistent with the sample data. ML methods, such as Restricted Maximum Likelihood (REML) and Full Maximum Likelihood (FML), are commonly used in HLM analysis, but due to their asymptotic nature, large sample sizes are needed. Therefore, small sample sizes can affect the accuracy of the HLM estimates and the associated standard errors. In the FML method, the regression coefficients and the variance components are included in the likelihood function, whereas in the REML method only the variance terms are included in the likelihood function and the regression coefficients are estimated in another step. That is, the REML likelihood function estimates the variance terms after removing the fixed effects from the model [16, 39]. Though in practice the difference between the two methods is small, some researchers state REML is preferred because it takes the uncertainty in the fixed parameters into account when estimating the random parameters [20, 23]. Thus, in theory REML should lead to better estimates of the variance components, especially when the number of groups is small [35]. Whereas, others state FML is preferred because computations are generally easier [21]. We note that most software such as Matlab, MPlus, and SAS can estimate parameters with both with the FML and REML methods. This research utilized the maximum likelihood REML because not only are small samples sizes considered, which REML provides better results for than FML, but REML was the ML of choice for other comparable research.

## 2.3 Current HLM Statistical Power Sample Size Requirements

Sample size determinations and collection processes are important to both observational and experimental studies because, for example, to interview 10 persons from 100 regions is easier and more cost effective than interviewing 1,000 people randomly. To determine sample size requirements, Maas and Hox (2005) suggest examining the accuracy of the parameter estimates and corresponding standard errors based on the number of clusters chosen for each level [28]. Here in this research, clusters are used to generally describe the different level groupings (i.e., group, unit, and organization) as a whole. In HLM analysis, determining the sample size is more difficult because there are parameters at more than one level, and the model includes fixed and random parts [21]. Sample size recommendations in testing is based on detectable differences (from the estimated coefficient $\hat{\mu}$ to the hypothesized parameter value $\mu_0$) and estimated confidence intervals. For studies to have large enough detectable differences, sample size planning is necessary to reduce Type II (failing to reject a null hypothesis i.e., false negative) errors. To test the hypothesis that a particular parameter has no effect, a test statistic is computed for that parameter. In HLM, the test statistic is the estimated coefficient to its estimated standard error $t^* = \frac{\hat{\mu}}{s.e.(\hat{\mu})}$ [24]. Note, this is the test statistic when $H_0 : \mu = 0$. That is, whether or not the particular predictor variable has an effect on the response. If testing another value, say $\mu_0$, the best statistic is in general $t^* = \frac{\hat{\mu}-\mu_0}{s.e.(\hat{\mu})}$. The hypothesis tests to determine significance for a fixed effect in general is:

$$H_0 : \mu = 0 \text{ and } H_A : \mu \neq 0$$

with $t^* = \frac{\hat{\mu}}{s.e.(\hat{\mu})}$, such that the decision rule with significance level $\alpha$ is:

$$|t^*| \leq t(1-\alpha/2; n-2) \text{ then conclude } H_0$$
$$|t^*| > t(1-\alpha/2; n-2) \text{ then conclude } H_A.$$

Note that for a Level-2 HLM test, the hypothesis tests to determine significance for a fixed effect is:

$$H_0 : \beta_{ij} = 0 \text{ and } H_A : \beta_{ij} \neq 0,$$

with $t^* = \frac{\hat{\beta}_{ij}}{s.e.(\hat{\beta}_{ij})}$. For a Level-3 HLM test, the hypothesis tests to determine significance for a fixed effect is:

$$H_0 : \gamma_{ijk} = 0 \text{ and } H_A : \gamma_{ijk} \neq 0$$

with $t^* = \frac{\hat{\gamma}_{ijk}}{s.e.(\hat{\gamma}_{ijk})}$, and for a Level-4 HLM test, the hypothesis tests to determine significance for a fixed effect is:

$$H_0 : \delta_{ijkl} = 0 \text{ and } H_A : \delta_{ijkl} \neq 0$$

with $t^* = \frac{\hat{\delta}_{ijkl}}{s.e.(\hat{\delta}_{ijkl})}$.

The statistical power, $\pi$, of a hypothesis is the probability of rejecting $H_0$ given that $H_0$ is false. The power of a statistical test is a function of the type I error ($\alpha$), standard error ($s.e.(\hat{\mu})$) and the population estimated effect size ($\hat{\mu} - \mu$), where $\hat{\mu}$ is estimated from the model and $\mu_0$ is the parameter of interest. These are represented in the following equation [13]:

$$\frac{\hat{\mu} - \mu_0}{s.e.(\hat{\mu})} \approx z_{1-\alpha/2} + z_\pi \tag{17}$$

This implies

$$z_\pi \approx -z_{1-\alpha/2} + \frac{\hat{\mu} - \mu_0}{s.e.(\hat{\mu})}. \tag{18}$$

Under the two-sided hypothesis test, $H_0$ is rejected when:

$$\begin{aligned}
P\left(\left|\frac{\hat{\mu} - \mu_0}{s.e.(\hat{\mu})}\right| > z_{1-\alpha/2}\right) &= 1 - P\left(\left|\frac{\hat{\mu} - \mu_0}{s.e.(\hat{\mu})}\right| \leq z_{1-\alpha/2}\right) \\
&= 1 - P\left(-z_{1-\alpha/2} \leq \frac{\hat{\mu} - \mu_0}{s.e.(\hat{\mu})} \leq z_{1-\alpha/2}\right) \\
&= 1 - P\left(-z_{1-\alpha/2} \leq \frac{\hat{\mu} - \mu}{s.e.(\hat{\mu})} + \frac{\mu - \mu_0}{s.e.(\hat{\mu})} \leq z_{1-\alpha/2}\right) \\
&= 1 - P\left(-z_{1-\alpha/2} \leq \frac{\hat{\mu} - \mu}{s.e.(\hat{\mu})} + \frac{\mu - \mu_0}{s.e.(\hat{\mu})} \leq z_{1-\alpha/2}\right) \\
&= 1 - P\left(-z_{1-\alpha/2} \leq \frac{\hat{\mu} - \mu}{s.e.(\hat{\mu})} + Z \leq z_{1-\alpha/2}\right) \\
&= 1 - P\left(-z_{1-\alpha/2} - \frac{\hat{\mu} - \mu}{s.e.(\hat{\mu})} \leq Z \leq z_{1-\alpha/2} - \frac{\hat{\mu} - \mu}{s.e.(\hat{\mu})}\right).
\end{aligned}$$

For large sample sizes (i.e., as $n \to \infty$), $\frac{\hat{\mu}-\mu}{s.e.(\hat{\mu})}$ follows a standard normal distribution when the alternative hypothesis is true. This implies

$$z_\pi \approx 1 - \Phi\left(-\frac{\hat{\mu} - \mu}{s.e.(\hat{\mu})} + z_{1-\alpha/2}\right), \tag{19}$$

where $z_{1-\alpha/2}$ is the z-value associated with the Type I error for a two-tailed test, $z_\pi$ is the z-value associated with statistical power, estimated effect size is the magnitude of the true group difference, and standard error is the square root of the parameter variance [38, 42].

In HLM analysis, the parameter of interest, $\mu$, represents generally the coefficients of the model. To calculate power of the coefficients, the variance of the estimators needs to be derived. The variance of the coefficient estimates are well defined for a single variable, as shown in Appendix A, and the formulas are extended to Level-3

and Level-4 HLM in the Chapter III.

Cohen (1988) suggests that power is moderate when estimated effect size is 0.50 and high when estimated effect size is at least 0.80 [11]. For a Level-2 HLM, to achieve a desired level of power given a relevant (hypothesized) estimated effect size and a chosen significance level (i.e., $\alpha = 0.05$) large samples are preferred in order to increase the precision of parameter estimates. To achieve a particular statistical power, the optimal sample sizes for each level must be determined. Currently, few sample size guidelines are referenced in the literature. Arend and Schafer (2019) found that HLM articles published between 2000 and 2016 in *Journal of Abnormal Psychology*, *Journal of Applied Psychology*, *Journal of Educational Psychology*, and *Journal of Personality and Social Psychology* consisted of 269 studies, of which only 9 studies included an exact determination of power [6]. Furthermore, these studies primarily exist for Level-2 HLMs, and the theory has not been translated to higher levels (e.g. Level-3 and Level-4) [7, 11].

The following referenced study conditions are for a single predictor at each level (Level-1, $A_{ij}$, and Level-2, $X_{ij}$), continuous predictors at each level, one cross-level interaction between predictors at each level ($A_{ij}X_{ij}$), and two random effects. Though, the associated study conditions (i.e. predictor distributions) are not always clearly addressed. The only case specifically specified consistently was $A_{ij} \sim N(0,1)$, $X_{ij} \sim N(0,1)$, $e_{ij} \sim N(0,1)$, and $r_{ij} \sim N(0,1)$.

**Table 1. Level-2 sample size recommendations to achieve sufficient power of 80 %**

| | | Level-2 Sample Size | Recommendations |
|---|---|---|---|
| Authors(s) | Reference(s) | Level-1 | Level-2 |
| Maas and Jox | [27, 28] | 5 - 50 | 30 - 100 |
| Kreft | [23] | 30 | 30 |
| Hox | [20] | 20 | 50 |
| Hoffman | [18] | 20 | 50 |
| | | 5 | 150 |

The sample size for each HLM level is defined as the number of clusters observed for that specific level [41]. The overall sample size total, $N$, is the product of the sample sizes at all the levels (e.g. $N = ng$ for Level-2 HLM). To achieve sufficient power, previous research for Level-2 HLM analysis found that a larger number of Level-2 groups appears to be more important than a large number of individuals per group (Level-1 sample size) [25, 33, 40]. Maas and Jox (2004, 2005) found that the appropriate number of Level-2 groups ranges from 30 to 100 and the number of Level-1 individuals range from 5 to 50 [27, 28].

Others suggest a common rule of thumb which is to have a minimum of 30 consistent clusters at Level-2 and at Level-1 [8, 23, 25]. Hox (1998) further refined this rule and recommended a minimum of 20 individuals (Level-1) for 50 groups (Level-2) [20]. Hoffman (1997) compared 30 individuals at Level-1 and 30 groups at Level-2 (for a total sample size of $N = 900$) to 5 individuals at Level-1 and 150 groups at Level-2 (for a total sample size of $N = 750$) and found that both approaches have the same power [18]. Though not shown, Snider and Bosker (2012) suggested a larger number of clusters at Level-2 and smaller number of clusters at Level-1 may still produce high levels of statistical power [42].

These sample size recommendations (summarized in Table Table 1) are contradictory to achievable samples sizes in many HLM applications. For many HLM analyses, the number of Level-2 groups is usually smaller than the number of Level-1 individuals. Further, as the number of levels increases (e.g. Level-3 and Level-4), the associated number of clusters decreases. For instance, in the AF DCGS application, the number of organizations is smaller than the number of units, the number of units is smaller than the number of teams (groups), and the number of teams is smaller than the number of analysts.

Sample size recommendations do not exist in the literature for Level-3 and Level-4

studies. However, there are statistical software applications, such as Optimal Design, which can compute statistical power for Level-2, Level-3 and Level-4 experimentation with treatment effects [22]. Treatment effects are primarily used for clinical type studies in which factor levels are varied and have associated variability equations with which to compute standard error used to calculate statistical power [30, 36]. However, these software calculations do not incorporate the goals of this research which focuses on continuous variables. In these studies, predictor variables have fixed, discrete levels and continuous predictor variables, such as those in the notional AF DCGS application, are not considered.

Typically, increasing the sample size improves model power and parameter estimates, but for most organizational research studies and populations of interest, this is not always possible as the sample may not exist or cannot be collected. Furthermore, financial constraints may not make sampling additional subjects feasible. In some applications, the sample size requirements may exceed the total population, especially in higher levels of the HLM. This research seeks to better define sample size requirements for Level-2, Level-3 and Level-4 HLMs, and define if resampling techniques may be used to achieve sufficient estimation and power for those scenarios in which sample size requirements cannot be met due to population or financial constraints.

# III. Research Objective 1: Sample Size Requirements

This research considers HLMs with one predictor at each level and no predictor interactions within a given level. We assume that in each level, predictor effects are additive and therefore maybe represented through one predictor variable at each level. To understand the complexity of a Level-4 HLM in this scenario with a single predictor at each level and no predictor interactions within level, this research begins by first conceptualizing the Level-2 HLM. Then the Level-3 and Level-4 HLMs will be constructed. The Level-2, Level-3, and Level-4 HLMs were shown generally in the previous Chapter. For a Level-2 HLM, separate equations are developed for Level-1 (e.g. individuals) and for Level-2 (e.g. group) with a single predictor at Level-1 and Level-2 such that the predictors are independent at each level and across levels.

Within the following sections the standard error of the parameter estimates for Level-2, Level-3, and Level-4 are derived to determine the power of parameters by level expressed in Equation 19.

**Level-1 of the HLM Measurement Model for 1 Individual Predictor at Level-1.**

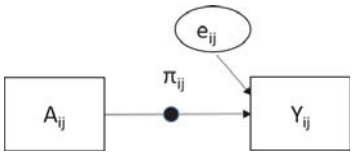


**Figure 7. First level of an HLM structural model with 1 individual predictor at Level-2.**

The Level-1 HLM equation, also known as the measurement model, for one individual predictor at Level-1, Figure 7, is:

$$Y_{ij} = \pi_{0j} + \pi_{1j} A_{ij} + e_{ij} \tag{20}$$

where:

$Y_{ij}$ is the outcome variable of individual $i$ and in group $j$;

$\pi_{0j}$ is the intercept for group $j$;

$A_{ij}$ is the Level-1 fixed predictor (individual-level explanatory) variable;

$\pi_{1j}$ the Level-1 coefficient that indicates the direction and strength of association between the Level-1 predictor, $A_{ij}$, and the outcome in group $j$;

$e_{ij}$ is the Level-1 random error that represents the deviation of individual $ij$ from the predicted value based on the individual-level model, such that: $e_{ij} \sim N(0, \sigma_e^2)$.

**Level-2 of the HLM Measurement Model for 1 Individual Predictor at Level-1 and 1 Group Predictor at Level-2.**

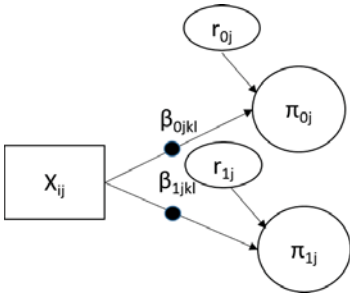


**Figure 8. Second level of an HLM structural model with 1 group predictor at Level-2.**

For Figure 8, the Level-1 coefficients ($\pi_{0j}$ and $\pi_{1j}$), defined in Level-1 of the HLM expression in Equation 20, become outcome variables in Level-2 of the HLM measurement model. That is:

$$\begin{aligned} \pi_{0j} &= \beta_{00} + \beta_{01} X_{ij} + r_{0j}, \\ \pi_{1j} &= \beta_{10} + \beta_{11} X_{ij} + r_{1j}, \end{aligned} \tag{21}$$

where:

$\beta_{00}$, $\beta_{10}$: are the intercepts of the individual effect $\pi_{ij}$;

$X_{ij}$: is the Level-2 predictor (group-level explanatory variable);

$\beta_{01}$, $\beta_{11}$: are the Level-2 coefficients that indicate the direction and strength of association between the Level-2 predictor, $X_{ij}$, and $\pi_{ij}$;

$r_{0j}$, $r_{1j}$: are the Level-2 random errors that represent the deviation of group $j$'s Level-1 coefficient, $\pi_{ij}$, from its predicted value based on the Level-2 model, such that: $r_{ij} \sim N(0, \sigma_r^2)$ and $Cov(r_{ij}, e_{ij}) = 0$ for all $i$ and $j$.

By substitution of the expression from Equation 21 into Equation 20, the full model may be written out as:

$$\begin{aligned} Y_{ij} &= (\beta_{00} + \beta_{01}X_{ij} + r_{0j}) + (\beta_{10} + \beta_{11}X_{ij} + r_{1j})A_{ij} + e_{ij} \\ &= \beta_{00} + \beta_{01}X_{ij} + r_{0j} + \beta_{10}A_{ij} + \beta_{11}X_{ij}A_{ij} + r_{1j}A_{ij} + e_{ij} \\ &= \beta_{00} + \beta_{01}X_{ij} + r_{0j} + \beta_{10}A_{ij} + \beta_{11}X_{ij}A_{ij} + r_{1j}A_{ij} + e_{ij} \\ &= \beta_{00} + \beta_{01}X_{ij} + \beta_{10}A_{ij} + \beta_{11}X_{ij}A_{ij} + r_{1j}A_{ij} + r_{0j} + e_{ij}. \end{aligned}$$

Thus, the Level-2 HLM combined measurement model for one individual predictor on Level-1 and one group predictor on Level-2 is

$$Y_{ij} = \beta_{00} + \beta_{01}X_{ij} + \beta_{10}A_{ij} + \beta_{11}X_{ij}A_{ij} + r_{1j}A_{ij} + r_{0j} + e_{ij}. \tag{22}$$

For a Level-2 HLM analysis, the proportion of variance within individual-level is

equivalent to

$$ICC2_1 = \frac{\sigma_e^2}{\sigma_e^2 + \sigma_r^2}. \tag{23}$$

The proportion of variance within group-level is equivalent to

$$ICC2_2 = \frac{\sigma_r^2}{\sigma_e^2 + \sigma_r^2}.$$

**Level-2 Derived Variance.**

For a Level-2 HLM,

$$\mathbf{Y}_{N\times 1} = \mathbf{M}_{N\times p}\beta_{p\times 1} + \varepsilon_{N\times 1}$$

where:

$N$ is the total sample size, $N = ng$, for number of Level-1 individuals, $n$, and the number of Level-2 groups, $g$;

$p$ is the number of the Level-2 coefficients ($\beta_{00}, \beta_{01}, \beta_{10}$, and $\beta_{11}$).

This implies:

$$\begin{bmatrix} Y_{11} \\ Y_{21} \\ Y_{31} \\ \vdots \\ Y_{n-1g} \\ Y_{ng} \end{bmatrix} = \begin{bmatrix} 1 & A_{11} & X_{11} & A_{11}X_{11} \\ 1 & A_{21} & X_{21} & A_{21}X_{21} \\ 1 & A_{31} & X_{31} & A_{31}X_{31} \\ \vdots & \vdots & \vdots & \vdots \\ 1 & A_{n-1g} & X_{n-1g} & A_{n-1g}X_{n-1g} \\ 1 & A_{ng} & X_{ng} & A_{ng}X_{ng} \end{bmatrix} \begin{bmatrix} \beta_{00} \\ \beta_{10} \\ \beta_{01} \\ \beta_{11} \end{bmatrix} + \begin{bmatrix} r_{01} + r_{11}A_{11} + e_{11} \\ r_{01} + r_{11}A_{21} + e_{21} \\ r_{01} + r_{11}A_{31} + e_{31} \\ \vdots \\ r_{0g} + r_{1g}A_{n-1g} + e_{n-1g} \\ r_{0g} + r_{1g}A_{ng} + e_{ng} \end{bmatrix}$$

For $\mathbf{Y} = [Y_{11}, Y_{21}, ..., Y_{ng}]'$ and $Y_{ij} \sim N(\mathbf{M}_{Level-2}\beta, \mathbf{\Sigma})$. Recall, $A_{ij}$ and $X_{ij}$ are independent, $A_{ij} \sim N(0, \sigma_A^2)$, and $X_{ij} \sim N(0, \sigma_X^2)$. This implies:

$$\Sigma_{ij} = Var(Y_{ij})$$

$$
\begin{aligned}
&= Var(\beta_{00} + \beta_{01}X_{ij} + \beta_{10}A_{ij} + \beta_{11}A_{ij}X_{ij} + r_{0j} + r_{1j}A_{ij} + e_{ij}) \\
&= Var(\beta_{00}) + Var(\beta_{01}X_{ij}) + Var(\beta_{10}A_{ij}) + Var(\beta_{11}A_{ij}X_{ij}) \\
&+ Var(r_{0j}) + Var(r_{1j}A_{ij}) + Var(e_{ij}) \\
&= Var(\beta_{00}) + \beta_{01}^2 Var(X_{ij}) + \beta_{10}^2 Var(A_{ij}) + \beta_{11}^2 Var(A_{ij}X_{ij}) \\
&+ Var(r_{0j}) + Var(r_{1j}A_{ij}) + Var(e_{ij}) \\
&= 0 + \beta_{01}^2\sigma_X^2 + \beta_{10}^2\sigma_A^2 + \beta_{11}^2\sigma_A^2\sigma_X^2 + \sigma_r^2 + \sigma_r^2\sigma_A^2 + \sigma_e^2 \\
&= \beta_{01}^2\sigma_X^2 + \beta_{10}^2\sigma_A^2 + \beta_{11}^2\sigma_A^2\sigma_X^2 + \sigma_r^2 + \sigma_r^2\sigma_A^2 + \sigma_e^2 \\
&= \sigma_{Level-2}^2,
\end{aligned}
$$

such that $\Sigma = \sigma_{Level-2}^2 \mathbf{I}_{N\times N}$,

$$
= \begin{bmatrix}
\beta_{01}^2\sigma_X^2 + ... + \sigma_e^2 & 0 & 0 & \dots & 0 \\
0 & \beta_{01}^2\sigma_X^2 + ... + \sigma_e^2 & 0 & \dots & 0 \\
0 & 0 & \beta_{01}^2\sigma_X^2 + ... + \sigma_e^2 & \dots & 0 \\
0 & 0 & 0 & \ddots & 0 \\
0 & 0 & 0 & \dots & \beta_{01}^2\sigma_X^2 + ... + \sigma_e^2
\end{bmatrix}.
$$

For the standard errors of the model coefficients, consider $\mathbf{D}_{Level-2} = \mathbf{M}'_{Level-2}\mathbf{M}_{Level-2}$. Then

$$
\mathbf{D}_{Level-2} = \begin{bmatrix}
1 & 1 & 1 & \dots & 1 \\
A_{11} & A_{21} & A_{31} & \dots & A_{ng} \\
X_{11} & X_{21} & X_{31} & \dots & X_{ng} \\
A_{11}X_{11} & A_{21}X_{21} & A_{31}X_{31} & \dots & A_{ng}X_{ng}
\end{bmatrix}
\begin{bmatrix}
1 & A_{11} & X_{11} & A_{11}X_{11} \\
1 & A_{21} & X_{21} & A_{21}X_{21} \\
1 & A_{31} & X_{31} & A_{31}X_{31} \\
\vdots & \vdots & \vdots & \vdots \\
1 & A_{ng} & X_{ng} & A_{ng}X_{ng}
\end{bmatrix}
$$

$$= \begin{bmatrix} \sum_{k=1}^{f}\sum_{j=1}^{g}\sum_{i=1}^{n} 1 & \sum_{j=1}^{g}\sum_{i=1}^{n} A_{ij} & \sum_{j=1}^{g}\sum_{i=1}^{n} X_{ij} & \sum_{j=1}^{g}\sum_{i=1}^{n} A_{ij}X_{ij} \\ \sum_{j=1}^{g}\sum_{i=1}^{n} A_{ij} & \sum_{j=1}^{g}\sum_{i=1}^{n} A_{ij}^2 & \sum_{j=1}^{g}\sum_{i=1}^{n} A_{ij}X_{ij} & \sum_{j=1}^{g}\sum_{i=1}^{n} A_{ij}^2X_{ij} \\ \sum_{j=1}^{g}\sum_{i=1}^{n} X_{ij} & \sum_{j=1}^{g}\sum_{i=1}^{n} A_{ij}X_{ij} & \sum_{j=1}^{g}\sum_{i=1}^{n} X_{ij}^2 & \sum_{j=1}^{g}\sum_{i=1}^{n} A_{ij}X_{ij}^2 \\ \sum_{j=1}^{g}\sum_{i=1}^{n} A_{ij}X_{ij} & \sum_{j=1}^{g}\sum_{i=1}^{n} A_{ij}^2X_{ij} & \sum_{j=1}^{g}\sum_{i=1}^{n} A_{ij}X_{ij}^2 & \sum_{j=1}^{g}\sum_{i=1}^{n} (A_{ij}X_{ij})^2 \end{bmatrix}$$

$$= \begin{bmatrix} d_{1,1} & d_{1,2} & d_{1,3} & d_{1,4} \\ d_{2,1} & d_{2,2} & d_{2,3} & d_{2,4} \\ d_{3,1} & d_{3,2} & d_{3,3} & d_{3,4} \\ d_{4,1} & d_{4,2} & d_{4,3} & d_{4,4} \end{bmatrix}$$

The standard error of each parameter $\hat{\beta}_{\mathbf{ij}}$ are the analogous diagonal elements derived in Appendix A. That is, generally $s.e.(\mu) = \sqrt{\mathbf{\Sigma(M'M)^{-1}}}$ (Appendix A). Therefore, for a Level-2 HLM $s.e.(\hat{\beta}) = \sqrt{\sigma^2_{Level-2}\mathbf{I}_{N\times N}\mathbf{D}^{-1}_{Level-2}}$. If the Level-2 HLM predictors have the following distributions $A_{ij} \sim N(0, \sigma_A^2)$ and $X_{ij} \sim N(0, \sigma_X^2)$, then the elements of $\mathbf{D}_{Level-2}$ are:

$$d_{1,1} = \sum_{j=1}^{g}\sum_{i=1}^{n} 1 = ng = N,$$

$$d_{1,2} = a_{2,1} = \sum_{j=1}^{g}\sum_{i=1}^{n} A_{ij} = ngE[A_{ij}] = N\mu_A = N(0) = 0,$$

$$d_{1,3} = a_{3,1} = \sum_{j=1}^{g}\sum_{i=1}^{n} X_{ij} = ngE[X_{ij}] = N\mu_X = N(0) = 0,$$

$$d_{1,4} = a_{2,3} = a_{3,2} = a_{4,1} = \sum_{j=1}^{g}\sum_{i=1}^{n} A_{ij}X_{ij} = ngE[A_{ij}X_{ij}] = N(cov(A_{ij}, X_{ij}) + E[A_{ij}]E[X_{ij}])$$

$$= N(0 + \mu_A\mu_X) = N(0 + (0)(0)) = N(0) = 0,$$

$$d_{2,2} = \sum_{j=1}^{g}\sum_{i=1}^{n} A_{ij}^2 = ngE[A_{ij}^2] = ng(\sigma_A^2 + \mu_A^2) = N(\sigma_A^2 + 0) = N\sigma_A^2,$$

$$d_{2,4} = a_{4,2} = \sum_{j=1}^{g}\sum_{i=1}^{n} X_{ij}^2A_{ij} = ngE[X_{ij}^2A_{ij}] = N(cov(X_{ij}^2, A_{ij}) + E[X_{ij}]^2]E[A_{ij}])$$

$$= N(cov(X_{ij}^2, A_{ij}) + (\sigma_X^2 + E[X_{ij}]^2)E[A_{ij}]) = N(0 + (\sigma_X^2 + \mu_X^2)(\mu_A))$$

$$= N((\sigma_X^2 + 0)(0)) = 0,$$

$$d_{3,3} = \sum_{j=1}^{g}\sum_{i=1}^{n} X_{ij}^2 = ngE[X_{ij}^2] = ng(\sigma_X^2 + \mu_X^2) = N(\sigma_X^2 + 0) = N\sigma_X^2,$$

$$d_{3,4} = a_{4,3} = \sum_{j=1}^{g}\sum_{i=1}^{n} X_{ij}A_{ij}^2 = ngE[X_{ij}A_{ij}^2] = N(cov(X_{ij}, A_{ij}^2) + E[X_{ij}]]E[A_{ij}^2])$$

$$= N(cov(X_{ij}, A_{ij}^2) + E[X_{ij}](\sigma_A^2 + E[A_{ij}]^2)) = N(0 + (\mu_X)(\sigma_A^2 + \mu_A^2))$$

$$= N((\sigma_A^2 + 0)(0)) = 0,$$

$$d_{4,4} = \sum_{j=1}^{g}\sum_{i=1}^{n} (X_{ijkl}A_{ij})^2 = ngE[X_{ij}^2A_{ij}^2] = N(cov(X_{ij}^2, A_{ij}^2) + E[X_{ij}^2]]E[A_{ij}^2])$$

$$= N(cov(X_{ij}^2, A_{ij}^2) + (\sigma_X^2 + E[X_{ij}]^2)(\sigma_A^2 + E[A_{ij}]^2)) = N(\sigma_X^2 + \mu_X^2)(\sigma_A^2 + \mu_A^2)$$

$$= N(\sigma_X^2 + 0)(\sigma_A^2 + 0) = N\sigma_X^2\sigma_A^2.$$

Hence by substitution, this implies

$$\mathbf{D}_{Level-2} = \begin{bmatrix} N & 0 & 0 & 0 \\ 0 & N\sigma_X^2 & 0 & 0 \\ 0 & 0 & N\sigma_A^2 & 0 \\ 0 & 0 & 0 & N\sigma_A^2\sigma_X^2 \end{bmatrix}.$$

The inverse of the diagonal matrix $\mathbf{D}_{Level-2}$, is denoted $\mathbf{D^{-1}}_{Level-2}$ and equivalent to

$$\mathbf{D}_{Level-2}^{-1} = \begin{bmatrix} \frac{1}{N} & 0 & 0 & 0 \\ 0 & \frac{1}{N\sigma_X^2} & 0 & 0 \\ 0 & 0 & \frac{1}{N\sigma_A^2} & 0 \\ 0 & 0 & 0 & \frac{1}{N\sigma_A^2\sigma_X^2} \end{bmatrix}.$$

By Appendix A, $Var(\hat{\beta}) = \sigma^2_{Level-2}\mathbf{I}_{N\times N}\mathbf{D}^{-1}_{Level-2}$. Therefore,

$$Var(\hat{\beta}) = \begin{bmatrix} \frac{\sigma^2_{Level-2}}{N} & 0 & 0 & 0 \\ 0 & \frac{\sigma^2_{Level-2}}{N\sigma^2_X} & 0 & 0 \\ 0 & 0 & \frac{\sigma^2_{Level-2}}{N\sigma^2_A} & 0 \\ 0 & 0 & 0 & \frac{\sigma^2_{Level-2}}{N\sigma^2_A\sigma^2_X} \end{bmatrix}.$$

Hence, $s.e.(\hat{\beta}) = \sqrt{\sigma^2_{Level-2}\mathbf{I}_{N\times N}\mathbf{D}^{-1}_{Level-2}}$. Thus,

$$s.e.(\hat{\beta}) = \begin{bmatrix} \sqrt{\frac{\sigma^2_{Level-2}}{N}} & 0 & 0 & 0 \\ 0 & \sqrt{\frac{\sigma^2_{Level-2}}{N\sigma^2_X}} & 0 & 0 \\ 0 & 0 & \sqrt{\frac{\sigma^2_{Level-2}}{N\sigma^2_A}} & 0 \\ 0 & 0 & 0 & \sqrt{\frac{\sigma^2_{Level-2}}{N\sigma^2_A\sigma^2_X}} \end{bmatrix}. \tag{24}$$

**Level-3 of the HLM Measurement Model for 1 Individual Predictor at Level-1, 1 Group Predictor at Level-2, and 1 Unit Predictor at Level-3.**

For Figure 9, the Level-2 coefficients with Level-3 indexing ($\beta_{00k}, \beta_{01k}, \beta_{10k}$, and $\beta_{11k}$) defined in Level-2 of the HLM expressed in Equation 22, become outcome variables in Level-3 of the HLM measurement model such that $k = 1, ..., h$. That is:

$$\begin{aligned} \beta_{00k} &= \gamma_{000} + \gamma_{001}W_{ijk} + u_{00k}, \\ \beta_{01k} &= \gamma_{010} + \gamma_{011}W_{ijk} + u_{01k}, \\ \beta_{10k} &= \gamma_{100} + \gamma_{101}W_{ijk} + u_{10k}, \\ \beta_{11k} &= \gamma_{110} + \gamma_{111}W_{ijk} + u_{11k}, \end{aligned} \tag{25}$$

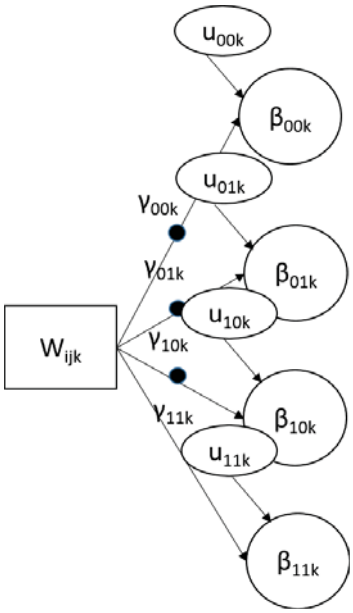


**Figure 9. Third level of an HLM structural model with 1 unit predictor at Level-3.**

where:

$\gamma_{000}$,$\gamma_{010}$,$\gamma_{100}$,$\gamma_{110}$: are the intercepts of the unit effect in modeling the group effect $\beta_{ijk}$;

$W_{ijk}$: is the Level-3 predictor (unit-level explanatory variable);

$\gamma_{001}$,$\gamma_{011}$,$\gamma_{101}$,$\gamma_{111}$: are the Level-3 coefficients that indicate the direction and strength of association between the Level-3 predictor, $W_{ijk}$, and the $\beta_{ijk}$;

$u_{00k}$,$u_{01k}$,$u_{00k}$,$u_{01k}$: are the Level-3 random errors that represent the deviation of unit $k$'s Level-2 coefficient, $\beta_{ijk}$, from its predicted value based on the Level-3 model, such that: $u_{ijk} \sim N(0, \sigma_u^2)$ and $Cov(u_{ijk}, r_{ijk}) = Cov(u_{ijk}, e_{ijk}) = Cov(r_{ijk}, e_{ijk}) = 0$ for all $i, j$, and $k$.

By substitution of the expression from Equation 25 into Equation 22, the full

model may be written out as:

$$
\begin{aligned}
Y_{ijk} &= (\gamma_{000} + \gamma_{001}W_{ijk} + u_{00k}) + (\gamma_{010} + \gamma_{011}W_{ijk} + u_{01k})X_{ijk} \\
&\quad + (\gamma_{100} + \gamma_{101}W_{ijk} + u_{10k})A_{ijk} + (\gamma_{110} + \gamma_{111}W_{ijk} + u_{11k})X_{ijk}A_{ijk} \\
&\quad + r_{0jk} + r_{1jk}A_{ijk} + e_{ijk} \\
&= \gamma_{000} + \gamma_{001}W_{ijk} + u_{00k} + \gamma_{010}X_{ijk} + \gamma_{011}W_{ijk}X_{ijk} + u_{01k}X_{ijk} \\
&\quad + \gamma_{100}A_{ijk} + \gamma_{101}W_{ijk}A_{ijk} + u_{10k}A_{ijk} + \gamma_{110}X_{ijk}A_{ijk} \\
&\quad + \gamma_{111}W_{ijk}X_{ijk}A_{ijk} + u_{11k}X_{ijk}A_{ijk} + r_{0jk} + r_{1jk}A_{ijk} + e_{ijk} \\
&= \gamma_{000} + \gamma_{001}W_{ijk} + \gamma_{010}X_{ijk} + \gamma_{011}W_{ijk}X_{ijk} \\
&\quad + A_{ijk}(\gamma_{100} + \gamma_{101}W_{ijk} + u_{10k} + r_{1jk} + X_{ijk}(u_{11k} + \gamma_{110} + \gamma_{111}W_{ijk})) \\
&\quad + u_{00k} + u_{01k}X_{ijk} + r_{0jk} + e_{ijk}.
\end{aligned}
$$

Thus, the Level-3 HLM combined measurement model for one individual predictor on Level-1, one group predictor on Level-2, and one unit predictor on Level-3 is

$$
\begin{aligned}
Y_{ijk} &= \gamma_{000} + \gamma_{010}X_{ijk} + \gamma_{001}W_{ijk} + \gamma_{011}X_{ijk}W_{ijk} + \gamma_{100}A_{ijk} \\
&\quad + \gamma_{101}A_{ijk}W_{ijk} + \gamma_{110}A_{ijk}X_{ijk} + \gamma_{111}A_{ijk}X_{ijk}W_{ijk} + u_{11k}A_{ijk}X_{ijk} \\
&\quad + u_{00k} + u_{01k}X_{ijk} + u_{10k}A_{ijk} + r_{1jk}A_{ijk} + r_{0jk} + e_{ijk}.
\end{aligned} \tag{26}
$$

For a Level-3 HLM analysis, the proportion of variance of individuals is

$$ICC3_1 = \frac{\sigma_e^2}{\sigma_e^2 + \sigma_r^2 + \sigma_u^2}.$$

The proportion of variance among groups is

$$ICC3_2 = \frac{\sigma_r^2}{\sigma_e^2 + \sigma_r^2 + \sigma_u^2}.$$

The proportion of variance of the units is

$$ICC3_3 = \frac{\sigma_u^2}{\sigma_e^2 + \sigma_r^2 + \sigma_u^2}.$$

**Level-3 Derived Variance.**

For a Level-3 HLM,

$$\mathbf{Y}_{N\times 1} = \mathbf{M}_{N\times p}\gamma_{p\times 1} + \varepsilon_{N\times 1}$$

where:

$N$ is the total sample size, $N = ngh$, for the number of Level-1 individuals, $n$, the number of Level-2 groups, $g$, and the number of Level-3 units, $h$;

$p$ is the number of the Level-3 coefficients ($\gamma_{000}, \gamma_{100}, \gamma_{010}, \gamma_{001}, \gamma_{110}, \gamma_{101}, \gamma_{011}$, and $\gamma_{111}$).

This implies:

$$
\begin{bmatrix} Y_{111} \\ Y_{112} \\ \vdots \\ Y_{11h} \\ Y_{121} \\ \vdots \\ Y_{12h} \\ \vdots \\ Y_{1g1} \\ \vdots \\ Y_{1gh} \\ \vdots \\ Y_{ngh} \end{bmatrix} = \begin{bmatrix} 1 & A_{111} & X_{111} & W_{111} & A_{111}X_{111} & A_{111}W_{111} & X_{111}W_{111} & A_{111}X_{111}W_{111} \\ 1 & A_{211} & X_{211} & W_{211} & A_{211}X_{211} & A_{211}W_{211} & X_{211}W_{211} & A_{211}X_{211}W_{211} \\ 1 & A_{311} & X_{311} & W_{311} & A_{311}X_{311} & A_{311}W_{311} & X_{311}W_{311} & A_{311}X_{311}W_{311} \\ & & & & \vdots & & & \\ 1 & A_{n-1gh} & X_{n-1gh} & W_{n-1gh} & A_{n-1gh}X_{n-1gh} & A_{n-1gh}W_{n-1gh} & X_{n-1gh}W_{n-1gh} & A_{n-1gh}X_{n-1gh}W_{n-1gh} \\ 1 & A_{ngh} & X_{ngh} & W_{11h} & A_{ngh}X_{ngh} & A_{ngh}W_{ngh} & X_{ngh}W_{ngh} & A_{ngh}X_{ngh}W_{ngh} \end{bmatrix} \begin{bmatrix} \gamma_{000} \\ \gamma_{100} \\ \gamma_{010} \\ \gamma_{001} \\ \gamma_{110} \\ \gamma_{101} \\ \gamma_{011} \\ \gamma_{111} \end{bmatrix}
$$

$$
+ \begin{bmatrix} u_{101}A_{111} + u_{011}X_{111} + u_{111}A_{111}X_{111} + r_{111}A_{111} + u_{001} + r_{011} + e_{111} \\ u_{101}A_{211} + u_{011}X_{211} + u_{111}A_{211}X_{112} + r_{111}A_{211} + u_{001} + r_{011} + e_{211} \\ u_{111}A_{311} + u_{011}X_{311} + u_{111}A_{311}X_{11h} + r_{111}A_{h11} + u_{001} + r_{011} + e_{311} \\ \vdots \\ u_{10h}A_{n-1gh} + u_{01h}X_{n-1gh} + u_{11h}A_{n-1gh}X_{n-1gh} + r_{11h}A_{n-1gh} + u_{00h} + r_{0gh} + e_{n-1gh} \\ u_{10h}A_{ngh} + u_{01h}X_{ngh} + u_{11h}A_{ngh}X_{ngh} + r_{11h}A_{ngh} + u_{00h} + r_{0gh} + e_{ngh} \end{bmatrix}.
$$

For $\mathbf{Y} = [Y_{111}, Y_{211}, ..., Y_{ngh}]'$ and $Y_{ijk} \sim N(\mathbf{M}_{Level-3}\gamma, \mathbf{\Sigma})$. Recall, $A_{ijk}$, $X_{ijk}$, and $W_{ijk}$ are independent, $A_{ijk} \sim N(0, \sigma_A^2)$, $X_{ijk} \sim N(0, \sigma_X^2)$, and $W_{ijk} \sim N(0, \sigma_W^2)$. Therefore,

$$
\begin{aligned}
\Sigma_{ijk} &= Var(Y_{ijk}) \\
&= Var(\gamma_{000} + \gamma_{011}X_{ijk} + \gamma_{001}W_{ijk} + \gamma_{011}X_{ijk}W_{ijk} + \gamma_{100}A_{ijk} \\
&+ \gamma_{101}A_{ijk}W_{ijk} + \gamma_{110}A_{ijk}X_{ijk} + \gamma_{111}A_{ijk}X_{ijk}W_{ijk} + u_{11k}A_{ijk}X_{ijk} \\
&+ u_{00k} + u_{01k}X_{ijk} + u_{10k}A_{ijk} + r_{1jk}A_{ijk} + r_{0jk} + e_{ijk}) \\
&= Var(\gamma_{000}) + Var(\gamma_{011}X_{ijk}) + Var(\gamma_{001}W_{ijk}) + Var(\gamma_{011}X_{ijk}W_{ijk}) + Var(\gamma_{100}A_{ijk}) \\
&+ Var(\gamma_{101}A_{ijk}W_{ijk}) + Var(\gamma_{110}A_{ijk}X_{ijk}) + Var(\gamma_{111}A_{ijk}X_{1jk}W_{ijk}) \\
&+ Var(u_{11k}A_{ijk}X_{ijk}) + Var(u_{00k}) + Var(u_{01k}X_{1jk}) + Var(u_{10k}A_{ijk}) + Var(r_{1jk}A_{ijk}) \\
&+ Var(r_{0jk}) + Var(e_{ijk}) \\
&= 0 + \gamma_{010}^2\sigma_X^2 + \gamma_{001}^2\sigma_W^2 + \gamma_{011}^2\sigma_X^2\sigma_W^2 + \gamma_{100}^2\sigma_A^2 + \gamma_{101}^2\sigma_A^2\sigma_W^2 + \gamma_{110}^2\sigma_A^2\sigma_X^2 + \gamma_{111}^2\sigma_A^2\sigma_X^2\sigma_W^2 \\
&+ \sigma_u^2\sigma_A^2\sigma_X^2 + \sigma_u^2 + \sigma_u^2\sigma_X^2 + \sigma_u^2\sigma_A^2 + \sigma_r^2\sigma_A^2 + \sigma_r^2 + \sigma_e^2 \\
&= \gamma_{010}^2\sigma_X^2 + \gamma_{001}^2\sigma_W^2 + \gamma_{011}^2\sigma_X^2\sigma_W^2 + \gamma_{100}^2\sigma_A^2 + \gamma_{101}^2\sigma_A^2\sigma_W^2 + \gamma_{110}^2\sigma_A^2\sigma_X^2 + \gamma_{111}^2\sigma_A^2\sigma_X^2\sigma_W^2 \\
&+ \sigma_u^2\sigma_A^2\sigma_X^2 + \sigma_u^2 + \sigma_u^2\sigma_X^2 + \sigma_u^2\sigma_A^2 + \sigma_r^2\sigma_A^2 + \sigma_r^2 + \sigma_e^2 \\
&= \sigma_{Level-3}^2
\end{aligned}
$$

such that

$\mathbf{\Sigma} = \sigma_{Level-3}^2\mathbf{I}_{N\times N}$,

$$= \begin{bmatrix} \gamma_{010}^2\sigma_X^2 + \gamma_{001}^2\sigma_W^2 + ... & 0 & \dots & 0 \\ +\sigma_u^2\sigma_A^2 + \sigma_r^2\sigma_A^2 + \sigma_r^2 + \sigma_e^2 & & & \\ 0 & \gamma_{010}^2\sigma_X^2 + \gamma_{001}^2\sigma_W^2 + ... & \dots & 0 \\ & +\sigma_u^2\sigma_A^2 + \sigma_r^2\sigma_A^2 + \sigma_r^2 + \sigma_e^2 & & \\ 0 & 0 & \ddots & 0 \\ 0 & 0 & & \gamma_{010}^2\sigma_X^2 + \gamma_{001}^2\sigma_W^2 + ... \\ & & & +\sigma_u^2\sigma_A^2 + \sigma_r^2\sigma_A^2 + \sigma_r^2 + \sigma_e^2 \end{bmatrix}.$$

For the standard errors of the model coefficients, consider

$\mathbf{D}_{Level-3} = \mathbf{M}'_{Level-3}\mathbf{M}_{Level-3}$. Then

$\mathbf{D}_{Level-3} =$

$$\begin{bmatrix} 1 & 1 & \dots & 1 \\ A_{111} & A_{112} & \dots & A_{ngh} \\ X_{.11} & X_{.12} & \dots & X_{.gh} \\ W_{..1} & W_{..2} & \dots & W_{..h} \\ \vdots & \vdots & \dots & \vdots \\ A_{111}X_{.11}W_{..1} & A_{112}X_{.12}W_{..2} & \dots & A_{ngh}X_{.gh}W_{..h} \end{bmatrix} \begin{bmatrix} 1 & A_{111} & X_{111} & W_{111} & ... & A_{111}X_{111}W_{111} \\ 1 & A_{112} & X_{112} & W_{112} & ... & A_{112}X_{112}W_{112} \\ 1 & A_{113} & X_{113} & W_{113} & ... & A_{113}X_{113}W_{113} \\ \vdots & \vdots & \vdots & \vdots & & \vdots \\ 1 & A_{ngh} & X_{ngh} & W_{ngh} & ... & A_{nghl}X_{nghl}W_{ngh} \end{bmatrix}$$

$$= \begin{bmatrix} \sum_{k=1}^{f}\sum_{j=1}^{g}\sum_{i=1}^{n} 1 & ... & \sum_{k=1}^{f}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}X_{ijk}W_{ijk} \\ \sum_{k=1}^{f}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk} & ... & \sum_{k=1}^{f}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}^2X_{ijk}W_{ijk} \\ \vdots & \ddots & \vdots \\ \sum_{k=1}^{f}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}X_{ijk}W_{ijk} & ... & \sum_{k=1}^{f}\sum_{j=1}^{g}\sum_{i=1}^{n} (A_{ijk}X_{ijk}W_{ijk})^2 \end{bmatrix}$$

$$= \begin{bmatrix} d_{1,1} & d_{1,2} & d_{1,3} & d_{1,4} & d_{1,5} & d_{1,6} & d_{1,7} & d_{1,8} \\ d_{2,1} & d_{2,2} & d_{2,3} & d_{2,4} & d_{2,5} & d_{2,6} & d_{2,7} & d_{2,8} \\ d_{3,1} & d_{3,2} & d_{3,3} & d_{3,4} & d_{3,5} & d_{3,6} & d_{3,7} & d_{3,8} \\ d_{4,1} & d_{4,2} & d_{4,3} & d_{4,4} & d_{4,5} & d_{4,6} & d_{4,7} & d_{4,8} \\ d_{5,1} & d_{5,2} & d_{5,3} & d_{5,4} & d_{5,5} & d_{5,6} & d_{5,7} & d_{5,8} \\ d_{6,1} & d_{6,2} & d_{6,3} & d_{6,4} & d_{6,5} & d_{6,6} & d_{6,7} & d_{6,8} \\ d_{7,1} & d_{7,2} & d_{7,3} & d_{7,4} & d_{7,5} & d_{7,6} & d_{7,7} & d_{7,8} \\ d_{8,1} & d_{8,2} & d_{8,3} & d_{8,4} & d_{8,5} & d_{8,6} & d_{8,7} & d_{8,8} \end{bmatrix},$$

which consists of the following elements:

$$d_{1,1} = \sum_{k=1}^{h} \sum_{j=1}^{g} \sum_{i=1}^{n} 1,$$

$$d_{1,2} = d_{2,1} = \sum_{k=1}^{h} \sum_{j=1}^{g} \sum_{i=1}^{n} A_{ijk},$$

$$d_{1,3} = d_{3,1} = \sum_{k=1}^{h} \sum_{j=1}^{g} \sum_{i=1}^{n} X_{ijk},$$

$$d_{1,4} = d_{4,1} = \sum_{k=1}^{h} \sum_{j=1}^{g} \sum_{i=1}^{n} W_{ijk},$$

$$d_{1,5} = d_{2,3} = d_{3,2} = d_{5,1} = \sum_{k=1}^{h} \sum_{j=1}^{g} \sum_{i=1}^{n} A_{ijk} X_{ijk},$$

$$d_{1,6} = d_{2,4} = d_{4,2} = d_{6,1} = \sum_{k=1}^{h} \sum_{j=1}^{g} \sum_{i=1}^{n} A_{ijk} W_{ijk},$$

$$d_{1,7} = d_{3,4} = d_{4,3} = d_{7,1} = \sum_{k=1}^{h} \sum_{j=1}^{g} \sum_{i=1}^{n} X_{ijk} W_{ijk},$$

$$d_{1,8} = d_{2,7} = d_{3,6} = d_{4,5} = d_{5,4} = d_{6,3} = d_{7,2} = d_{8,1} = \sum_{k=1}^{h} \sum_{j=1}^{g} \sum_{i=1}^{n} A_{ijk} X_{ijk} W_{ijk},$$

$$d_{2,2} = \sum_{k=1}^{h} \sum_{j=1}^{g} \sum_{i=1}^{n} A_{ijk}^2,$$

$$d_{2,5} = d_{5,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}^2 X_{ijk},$$

$$d_{2,6} = d_{6,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}^2 W_{ijk},$$

$$d_{2,8} = d_{5,6} = d_{6,5} = d_{8,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}^2 X_{ijk} W_{ijk},$$

$$d_{3,3} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijk}^2,$$

$$d_{3,5} = d_{5,3} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk} X_{ijk}^2,$$

$$d_{3,7} = d_{7,3} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijk}^2 W_{ijk},$$

$$d_{3,8} = d_{8,3} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk} X_{ijk}^2 W_{ijk},$$

$$d_{4,4} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} W_{ijk}^2$$

$$d_{4,6} = d_{6,4} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk} W_{ijk}^2,$$

$$d_{4,7} = d_{7,4} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijk} W_{ijk}^2,$$

$$d_{4,8} = d_{6,7} = d_{7,6} = d_{8,4} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk} X_{ijk} W_{ijk}^2,$$

$$d_{5,5} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} (A_{ijk} X_{ijk})^2,$$

$$d_{5,7} = d_{7,5} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}^2 X_{ijk} W_{ijk},$$

$$d_{5,8} = d_{8,5} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}^2 X_{ijk}^2 W_{ijk},$$

$$d_{6,6} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} (A_{ijk} W_{ijk})^2,$$

$$d_{6,8} = d_{8,6} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}^2 X_{ijk} W_{ijk}^2,$$

$$d_{7,7} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} (X_{ijk} W_{ijk})^2,$$

$$d_{7,8} = d_{8,7} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk} X_{ijk}^2 W_{ijk}^2,$$

$$d_{8,8} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} (A_{ijk} X_{ijk} W_{ijk})^2.$$

The standard error of each parameter $\hat{\gamma}_{\mathbf{ijk}}$ are the analogous diagonal elements derived in Appendix A. That is, generally $s.e.(\mu) = \sqrt{\mathbf{\Sigma}(\mathbf{M'M})^{-1}}$ (Appendix A). Therefore, for a Level-3 HLM $s.e.(\hat{\gamma}) = \sqrt{\sigma^2_{Level-3}\mathbf{I}_{NxN}\mathbf{D}^{-1}_{Level-3}}$. If the Level-3 HLM predictors have the following distributions $A_{ijk} \sim N(0, \sigma_A^2)$, $X_{ijk} \sim N(0, \sigma_X^2)$, and $W_{ijk} \sim N(0, \sigma_W^2)$, then the elements of $\mathbf{D}_{Level-3}$ are:

$$d_{1,1} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} 1 = ngh = N,$$

$$d_{1,2} = d_{2,1} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk} = nghE[A_{ijk}] = N\mu_A = N(0) = 0,$$

$$d_{1,3} = d_{3,1} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijk} = nghE[X_{ijk}] = N\mu_X = N(0) = 0,$$

$$d_{1,4} = d_{4,1} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} W_{ijk} = nghE[W_{ijk}] = N\mu_W = N(0) = 0,$$

$$d_{1,5} = d_{2,3} = d_{3,2} = d_{5,1} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk} X_{ijk} = nghE[A_{ijk} X_{ijk}]$$

$$= N(cov(A_{ijk}, X_{ijk}) + E[A_{ijk}]E[X_{ijk}]) = N(0 + \mu_A\mu_X) = N(0 + (0)(0)) = 0,$$

$$d_{1,6} = d_{2,4} = d_{4,2} = d_{6,1} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk} W_{ijk} = nghE[A_{ijk} W_{ijk}]$$

$$= N(cov(A_{ijk}, W_{ijk}) + E[A_{ijk}]E[W_{ijk}]) = N(0 + \mu_A\mu_W) = N(0 + (0)(0)) = 0,$$

$$d_{1,7} = d_{3,4} = d_{4,3} = d_{7,1} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijk}W_{ijk} = nghE[X_{ijk}W_{ijk}]$$

$$= N(cov(X_{ijk}, W_{ijk}) + E[X_{ijk}]E[W_{ijk}]) = N(0 + \mu_X\mu_W) = N(0 + (0)(0)) = 0,$$

$$d_{1,8} = d_{2,7} = d_{3,6} = d_{4,5} = d_{5,4} = d_{6,3} = d_{7,2} = d_{8,1} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}X_{ijk}W_{ijk}$$

$$= nghE[A_{ijk}X_{ijk}W_{ijk}] = N(cov(A_{ijk}X_{ijk}, W_{ijk}) + E[A_{ijk}X_{ijk}]E[W_{ijk}])$$

$$= N(0 + (cov(A_{ijk}, X_{ijk}) + E[A_{ijk}]^2E[X_{ijk}]^2)(\mu_W)) = N(0 + (0 + \mu_A^2\mu_X^2)(\mu_W^2))$$

$$= N(0 + (0 + (0)(0))(0)) = 0,$$

$$d_{2,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}^2 = nghE[A_{ijk}^2] = N(\sigma_A^2 + \mu_A^2) = N(\sigma_A^2 + 0) = N\sigma_A^2,$$

$$d_{2,5} = d_{5,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}^2X_{ijk} = nghE[A_{ijk}^2X_{ijk}] = N(cov(A_{ijk}^2, X_{ijk}) + E[A_{ijk}^2]E[X_{ijk}])$$

$$= N(cov(A_{ijk}^2, X_{ijk}) + (\sigma_A^2 + E[A_{ijk}]^2)E[X_{ijk}]) = N(0 + (\sigma_A^2 + \mu_A^2)(\mu_X))$$

$$= N((\sigma_A^2 + 0)(0)) = 0,$$

$$d_{2,6} = d_{6,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}^2W_{ijk} = nghE[A_{ijk}^2W_{ijk}] = N(cov(A_{ijk}^2, W_{ijk}) + E[A_{ijk}^2]E[W_{ijk}])$$

$$= N(cov(A_{ijk}^2, W_{ijk}) + (\sigma_A^2 + E[A_{ijk}]^2)E[W_{ijk}]) = N(0 + (\sigma_A^2 + \mu_A^2)(\mu_W))$$

$$= N((\sigma_A^2 + 0)(0)) = 0,$$

$$d_{2,8} = d_{5,6} = d_{6,5} = d_{8,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}^2X_{ijk}W_{ijk} = nghE[A_{ijk}^2X_{ijk}W_{ijk}]$$

$$= N(cov(A_{ijk}^2X_{ijk}, W_{ijk}) + E[A_{ijk}^2X_{ijk}]E[W_{ijk}])$$

$$= N(cov(A_{ijk}^2X_{ijk}, W_{ijk}) + (cov(A_{ijk}^2, X_{ijk}) + E[A_{ijk}^2]E[X_{ijk}])E[W_{ijk}])$$

$$= N(0 + (0 + E[A_{ijk}^2]\mu_X)\mu_W) = N(0 + (0 + (\sigma_A^2 + \mu_A)\mu_X)\mu_W)$$

$$= N(0 + (0 + (\sigma_A^2 + 0)0)0) = 0,$$

$$d_{3,3} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijk}^2 = nghE[X_{ijk}^2] = N(\sigma_X^2 + \mu_X^2) = N(\sigma_X^2 + 0) = N\sigma_X^2,$$

$$d_{3,5} = d_{5,3} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}X_{ijk}^2 = nghE[A_{ijk}X_{ijk}^2] = N(cov(A_{ijk}, X_{ijk}^2) + E[A_{ijk}]E[X_{ijk}^2])$$

$$= N(cov(A_{ijk}, X_{ijk}^2) + E[A_{ijk}](\sigma_X^2 + \mu_X)) = N(0 + \mu_A(\sigma_X^2 + \mu_X^2))$$

$$= N(0 + 0(\sigma_X^2 + 0)) = 0,$$

$$d_{3,7} = d_{7,3} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijk}^2 W_{ijk} = nghE[X_{ijk}^2 W_{ijk}] = N(cov(X_{ijk}^2, W_{ijk}) + E[X_{ijk}^2]E[W_{ijk}])$$

$$= N(cov(X_{ijk}^2, W_{ijk}) + (\sigma_X^2 + \mu_X)E[W_{ijk}]) = N(0 + (\sigma_X^2 + \mu_X^2)\mu_W)$$

$$= N(0 + (\sigma_X^2 + 0)0) = 0,$$

$$d_{4,4} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} W_{ijk}^2 = nghE[W_{ijk}^2] = N(\sigma_W^2 + \mu_W^2) = N(\sigma_W^2 + 0) = N\sigma_W^2,$$

$$d_{4,6} = d_{6,4} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}W_{ijk}^2 = nghE[A_{ijk}W_{ijk}^2] = N(cov(A_{ijk}, W_{ijk}^2) + E[A_{ijk}]E[W_{ijk}^2])$$

$$= N(0 + \mu_A(\sigma_W^2 + \mu_W^2)) = N(0 + 0(\sigma_W^2 + 0)) = 0,$$

$$d_{4,7} = d_{7,4} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijk}W_{ijk}^2 = nghE[X_{ijk}W_{ijk}^2] = N(cov(X_{ijk}, W_{ijk}^2) + E[X_{ijk}]E[W_{ijk}^2])$$

$$= N(0 + \mu_X(\sigma_W^2 + \mu_W^2)) = N(0 + 0(\sigma_W^2 + 0)) = 0,$$

$$d_{4,8} = d_{6,7} = d_{7,6} = d_{8,4} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}X_{ijk}W_{ijk}^2 = nghE[A_{ijk}X_{ijk}W_{ijk}^2]$$

$$= N(cov(A_{ijk}X_{ijk}, W_{ijk}^2) + E[A_{ijk}X_{ijk}]E[W_{ijk}^2])$$

$$= N(0 + (cov(A_{ijk}, X_{ijk}) + E[A_{ijk}]E[X_{ijk}])(\sigma_W^2 + \mu_W^2)) = N(0 + (0 + \mu_A\mu_X)(\sigma_W^2 + \mu_W^2))$$

$$= N(0 + (0 + (0)(0))(\sigma_W^2 + 0)) = 0,$$

$$d_{5,5} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} (X_{ijk}A_{ijk})^2 = nghE[X_{ijk}^2 A_{ijk}^2] = N(cov(X_{ijk}^2, A_{ijk}^2) + E[X_{ijk}^2]E[A_{ijk}^2])$$

$$= N(0 + (\sigma_X^2 + \mu_X^2)(\sigma_A^2 + \mu_A^2)) = N(0 + (\sigma_X^2 + 0)(\sigma_A^2 + 0)) = N\sigma_X^2\sigma_A^2,$$

$$d_{5,7} = d_{7,5} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}X_{ijk}^2 W_{ijk} = nghE[A_{ijk}X_{ijk}^2 W_{ijk}]$$

$$= N(cov(A_{ijk}X_{ijk}^2, W_{ijk}) + E[A_{ijk}X_{ijk}^2]E[W_{ijk}])$$

$$= N(0 + (cov(A_{ijk}, X_{ijk}^2) + E[A_{ijk}]E[X_{ijk}^2])E[W_{ijk}])$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)(\sigma_X^2 + \mu_X^2))\mu_W) = N(0 + (0 + (\sigma_A^2 + 0)(\sigma_X^2 + 0))0) = 0,$$

$$d_{5,8} = d_{8,5} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}^2 X_{ijk}^2 W_{ijk} = nghE[A_{ijk}^2 X_{ijk}^2 W_{ijk}]$$

$$= N(cov(A_{ijk}^2 X_{ijk}^2, W_{ijk}) + E[A_{ijk}^2 X_{ijk}^2]E[W_{ijk}])$$

$$= N(0 + (cov(A_{ijk}^2, X_{ijk}^2) + E[A_{ijk}^2]E[X_{ijk}^2])\mu_W)$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)(\sigma_X^2 + \mu_X^2))\mu_W)$$

$$= N(0 + (0 + (\sigma_A^2 + 0)(\sigma_X^2 + 0))0) = 0,$$

$$d_{6,6} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} (A_{ijk}W_{ijk})^2 = nghE[A_{ijk}^2 W_{ijk}^2]$$

$$= N(cov(A_{ijk}^2, W_{ijk}^2) + E[A_{ijk}^2]E[X_{ijk}^2] = N(0 + (\sigma_A^2 + \mu_A^2)(\sigma_W^2 + \mu_W^2))$$

$$= N(0 + (\sigma_A^2 + 0)(\sigma_W^2 + 0)) = N\sigma_A^2\sigma_W^2,$$

$$d_{6,8} = d_{8,6} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}^2 X_{ijk} W_{ijk}^2 = nghE[A_{ijk}^2 X_{ijk} W_{ijk}^2]$$

$$= N(cov(A_{ijk}^2 X_{ijk}, W_{ijk}^2) + E[A_{ijk}^2 X_{ijk}]E[W_{ijk}^2])$$

$$= N(0 + (cov(A_{ijk}^2, X_{ijk}) + E[A_{ijk}^2]E[X_{ijk}])(\sigma_W^2 + \mu_W^2))$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)(\mu_X))(\sigma_W^2 + \mu_W^2))$$

$$= N(0 + (0 + (\sigma_X^2 + 0)0)(\sigma_W^2 + 0)) = 0,$$

$$d_{7,7} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} (X_{ijk}W_{ijk})^2 = nghE[X_{ijk}^2 W_{ijk}^2]$$

$$= N(cov(X_{ijk}^2, W_{ijk}^2) + E[X_{ijk}^2]E[X_{ijk}^2] = N(0 + (\sigma_X^2 + \mu_X^2)(\sigma_W^2 + \mu_W^2))$$

$$= N(0 + (\sigma_X^2 + 0)(\sigma_W^2 + 0)) = N\sigma_X^2\sigma_W^2,$$

$$d_{7,8} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijk}X_{ijk}^2 W_{ijk}^2 = nghE[A_{ijk}X_{ijk}^2 W_{ijk}^2]$$

$$= N(cov(A_{ijk}X_{ijk}^2, W_{ijk}^2) + E[A_{ijk}X_{ijk}^2]E[W_{ijk}^2])$$

$$= N(0 + (cov(A_{ijk}, X_{ijk}^2) + E[A_{ijk}]E[X_{ijk}^2])(\sigma_W^2 + \mu_W^2))$$

$$= N(0 + (0 + \mu_A(\sigma_X^2 + \mu_X^2))(\sigma_W^2 + \mu_W^2))$$

$$= N(0 + (0 + 0(\sigma_X^2 + 0))(\sigma_W^2 + 0)) = 0,$$

$$d_{8,8} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}(A_{ijk}X_{ijk}W_{ijk})^2 = nghE[A_{ijk}^2X_{ijk}^2W_{ijk}^2]$$

$$= N(cov(A_{ijk}^2X_{ijk}^2, W_{ijk}^2) + E[A_{ijk}^2X_{ijk}^2]E[W_{ijk}^2])$$

$$= N(0 + (cov(A_{ijk}^2, X_{ijk}^2) + E[A_{ijk}^2]E[X_{ijk}^2])(\sigma_W^2 + \mu_W^2))$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)(\sigma_X^2 + \mu_X^2))(\sigma_W^2 + \mu_W^2))$$

$$= N(0 + (0 + (\sigma_A^2 + 0)(\sigma_X^2 + 0))(\sigma_W^2 + 0)) = N\sigma_A^2\sigma_X^2\sigma_W^2.$$

Hence by substitution, this implies

$$\mathbf{D}_{Level-3} = \begin{bmatrix} N & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & N\sigma_A^2 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & N\sigma_X^2 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & N\sigma_W^2 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & N\sigma_A^2\sigma_X^2 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & N\sigma_A^2\sigma_W^2 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & N\sigma_X^2\sigma_W^2 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & N\sigma_A^2\sigma_X^2\sigma_W^2 \end{bmatrix}.$$

The inverse of the diagonal matrix $\mathbf{D}_{Level-3}$ is denoted $\mathbf{D}^{-1}_{Level-3}$ and is equivalent to

$$\mathbf{D}^{-1}_{Level-3} = \begin{bmatrix} \frac{1}{N} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{1}{N\sigma^2_A} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{1}{N\sigma^2_X} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{1}{N\sigma^2_W} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{1}{N\sigma^2_A\sigma^2_X} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{1}{N\sigma^2_A\sigma^2_W} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{N\sigma^2_X\sigma^2_W} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{N\sigma^2_A\sigma^2_X\sigma^2_W} \end{bmatrix}.$$

By Appendix A, $Var(\hat{\gamma}) = \sigma^2_{Level-3}\mathbf{I}_{N\times N}\mathbf{D}^{-1}_{Level-3}$. Therefore,

$$Var(\hat{\gamma}) = \begin{bmatrix} \frac{\sigma^2_{Level-3}}{N} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sigma^2_{Level-3}}{N\sigma^2_A} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sigma^2_{Level-3}}{N\sigma^2_X} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \frac{\sigma^2_{Level-3}}{N\sigma^2_W} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \frac{\sigma^2_{Level-3}}{N\sigma^2_A\sigma^2_X} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sigma^2_{Level-3}}{N\sigma^2_A\sigma^2_W} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sigma^2_{Level-3}}{N\sigma^2_X\sigma^2_W} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sigma^2_{Level-3}}{N\sigma^2_A\sigma^2_X\sigma^2_W} \end{bmatrix}.$$

Hence, $s.e.(\hat{\gamma}) = \sqrt{\sigma^2_{Level-3}\mathbf{I}_{N\times N}\mathbf{D}^{-1}_{Level-3}}$. Thus,

$$s.e.(\hat{\gamma}) = \begin{bmatrix} \sqrt{\frac{\sigma^2_{Level-3}}{N}} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \sqrt{\frac{\sigma^2_{Level-3}}{N\sigma^2_A}} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \sqrt{\frac{\sigma^2_{Level-3}}{N\sigma^2_X}} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \ddots & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \sqrt{\frac{\sigma^2_{Level-3}}{N\sigma^2_A\sigma^2_W}} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \sqrt{\frac{\sigma^2_{Level-3}}{N\sigma^2_X\sigma^2_W}} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{\frac{\sigma^2_{Level-3}}{N\sigma^2_A\sigma^2_WA}} \end{bmatrix}. \tag{27}$$

**Level-4 HLM Measurement Model for 1 Individual Predictor at Level-1, 1 Group Predictor at Level-2, 1 Unit Predictor at Level-3, and 1 Organization Predictor at Level-4.**

For Figure 10, the Level-3 coefficients with Level-4 indexing ($\gamma_{000l}, \gamma_{010l}, \gamma_{100l}$, $\gamma_{110l}$, $\gamma_{001l}, \gamma_{011l}, \gamma_{101l}$, $\gamma_{111l}$), defined in Level-3 of the HLM expressed in Equation 44, become outcome variables in Level-4 of the HLM measurement model such that $l = 1, ..., f$. That is:

$$\begin{aligned} \gamma_{000l} &= \delta_{0000} + \delta_{0001}Z_{ijkl} + v_{000l}, \\ \gamma_{010l} &= \delta_{0100} + \delta_{0101}Z_{ijkl} + v_{010l}, \\ \gamma_{100l} &= \delta_{1000} + \delta_{1001}Z_{ijkl} + v_{100l}, \\ \gamma_{110l} &= \delta_{1100} + \delta_{1101}Z_{ijkl} + v_{110l}, \\ \gamma_{001l} &= \delta_{0010} + \delta_{0011}Z_{ijkl} + v_{001l}, \\ \gamma_{011l} &= \delta_{0110} + \delta_{0111}Z_{ijkl} + v_{011l}, \\ \gamma_{101l} &= \delta_{1010} + \delta_{1011}Z_{ijkl} + v_{101l}, \\ \gamma_{111l} &= \delta_{1110} + \delta_{1111}Z_{ijkl} + v_{111l}, \end{aligned} \tag{28}$$

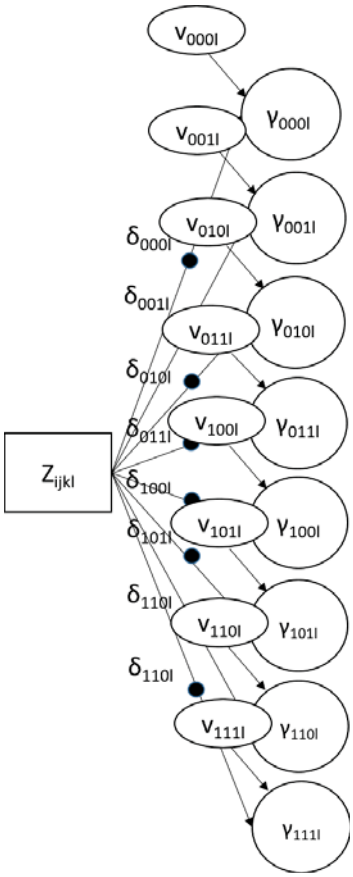


**Figure 10. Fourth level of an HLM structural model with 1 organizational predictor at Level-4.**

where: $\delta_{0000}$,$\delta_{0100}$,$\delta_{1000}$,$\delta_{1100}$,$\delta_{0010}$,$\delta_{0110}$, $\delta_{1010}$,$\delta_{1110}$: are the intercepts for the organizational effect in modeling the unit effect $\gamma_{ijkl}$;

$Z_{ijkl}$: is the Level-4 predictor (organizational-level explanatory variable);

$\delta_{0001}$,$\delta_{0101}$,$\delta_{1001}$,$\delta_{1101}$,$\delta_{0011}$,$\delta_{0111}$,$\delta_{1011}$,$\delta_{1111}$: are the Level-4 coefficients that indicate the direction and strength of association between the Level-4 predictor, $Z_{ijkl}$, and the $\gamma_{ijkl}$;

$v_{000l}$,$v_{010l}$,$v_{100l}$,$v_{110l}$,$v_{001l}$,$v_{001l}$,$v_{101l}$,$v_{111l}$: are the Level-4 random errors that represent the deviation of organization $ijkl$'s Level-3 coefficient, $\gamma_{ijkl}$, from its predicted value based on the Level-4 model. Such that: $v_{ijkl} \sim N(0, \sigma_v^2)$, $cov(v_{ijkl}, u_{..kl}) = cov(v_{ijkl}, r_{ijkl}) =$

$cov(v_{ijkl}, e_{ijkl}) = cov(u_{ijkl}, r_{ijkl}) = cov(u_{ijkl}, e_{ijkl}) = cov(r_{ijkl}, e_{ijkl}) = 0$ for all $i$,$j$,$k$, and $l$.

By substitution of the expression from Equation 28 into Equation 44, the full model may be written out as:

$$
\begin{aligned}
Y_{ijkl} &= (\delta_{0000} + \delta_{0001}Z_{ijkl} + v_{000l}) + (\delta_{0100} + \delta_{0101}Z_{ijkl} + v_{010l})X_{ijkl} \\
&\quad + (\delta_{0010} + \delta_{0011}Z_{ijkl} + v_{001l})W_{ijkl} + (\delta_{0110} + \delta_{0111}Z_{ijkl} + v_{011l})X_{ijkl}W_{ijkl} \\
&\quad + (\delta_{1000} + \delta_{1001}Z_{ijkl} + v_{100l})A_{.jkl} + (\delta_{1010} + \delta_{1011}Z_{ijkl} + v_{101l})A_{ijkl}W_{ijkl} \\
&\quad + (\delta_{1100} + \delta_{1101}Z_{ijkl} + v_{110l})A_{ijkl}X_{ijkl} + (\delta_{1110} + \delta_{1111}Z_{ijkl} + v_{111l})A_{ijkl}X_{ijkl}W_{ijkl} \\
&\quad + u_{11kl}A_{ijkl}X_{ijkl} + u_{00kl} + u_{01kl}X_{ijkl} + u_{10kl}A_{ijkl} + r_{1jkl}A_{ijkl} + r_{0jkl} + e_{ijkl} \\
&= \delta_{0000} + \delta_{0001}Z_{ijkl} + v_{000l} + \delta_{0100}X_{ijkl} + \delta_{0101}X_{ijkl}Z_{ijkl} + v_{010l}X_{ijkl} + \delta_{0010}W_{ijkl} \\
&\quad + \delta_{0011}W_{ijkl}Z_{ijkl} + v_{001l}W_{ijkl} + \delta_{0110}X_{ijkl}W_{ijkl} + \delta_{0111}X_{ijkl}W_{ijkl}Z_{ijkl} + v_{011l}X_{ijkl}W_{ijkl} \\
&\quad + \delta_{1000}A_{ijkl} + \delta_{1001}A_{ijkl}Z_{...} + v_{100l}A_{ijkl} + \delta_{1010}A_{ijkl}W_{ijkl} + \delta_{1011}A_{ijkl}W_{ijkl}Z_{ijkl} \\
&\quad + v_{101l}A_{ijkl}W_{ijkl} + \delta_{1100}A_{ijkl}X_{ijkl} + \delta_{1101}A_{ijkl}X_{ijkl}Z_{ijkl} + v_{110l}A_{ijkl}X_{ijkl} \\
&\quad + \delta_{1110}A_{ijkl}X_{ijkl}W_{ijkl} + \delta_{1111}A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl} + v_{111l}A_{ijkl}X_{ijkl}W_{ijkl} \\
&\quad + u_{11kl}A_{ijkl}X_{ijkl} + u_{00kl} + u_{01kl}X_{ijkl} + u_{10kl}A_{ijkl} + r_{1jkl}A_{ijkl} + r_{0jkl} + e_{ijkl} \\
&= \delta_{0000} + \delta_{1000}A_{ijkl} + \delta_{0100}X_{ijkl} + \delta_{0010}W_{ijkl} + \delta_{0001}Z_{ijkl} + \delta_{1100}A_{ijkl}X_{ijkl} + \delta_{1010}A_{ijkl}W_{ijkl} \\
&\quad + \delta_{1001}A_{ijkl}Z_{...} + \delta_{0110}X_{ijkl}W_{ijkl} + \delta_{0101}X_{ijkl}Z_{ijkl} + \delta_{0011}W_{ijkl}Z_{ijkl} + \delta_{1110}A_{ijkl}X_{ijkl}W_{ijkl} \\
&\quad + \delta_{1101}A_{ijkl}X_{ijkl}Z_{ijkl} + \delta_{1011}A_{ijkl}W_{ijkl}Z_{ijkl} + \delta_{0111}X_{ijkl}W_{ijkl}Z_{ijkl} + \delta_{1111}A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl} \\
&\quad + v_{111l}A_{ijkl}X_{ijkl}W_{ijkl} + v_{011l}X_{ijkl}W_{ijkl} + v_{101l}A_{ijkl}W_{ijkl} + v_{110l}A_{ijkl}X_{ijkl} \\
&\quad + v_{001l}W_{ijkl} + v_{010l}X_{ijkl} + v_{100l}A_{ijkl} + v_{000l} \\
&\quad + u_{11kl}A_{ijkl}X_{ijkl} + u_{00kl} + u_{01kl}X_{ijkl} + u_{10kl}A_{ijkl} + r_{1jkl}A_{ijkl} + r_{0jkl} + e_{ijkl}.
\end{aligned}
$$

Thus the Level-4 HLM combined measurement model for one individual predictor on

Level-1, one group predictor on Level-2, one unit predictor on Level-3 and one organization predictor on Level-4 is

$$\begin{aligned}
Y_{ijkl} &= \delta_{0000} + \delta_{1000}A_{ijkl} + \delta_{0100}X_{ijkl} + \delta_{0010}W_{ijkl} + \delta_{0001}Z_{ijkl} + \delta_{1100}A_{ijkl}X_{ijkl} + \delta_{1010}A_{ijkl}W_{ijkl} \\
&+ \delta_{1001}A_{ijkl}Z_{ijkl} + \delta_{0110}X_{ijkl}W_{ijkl} + \delta_{0101}X_{ijkl}Z_{ijkl} + \delta_{0011}W_{ijkl}Z_{ijkl} + \delta_{1110}A_{ijkl}X_{ijkl}W_{ijkl} \\
&+ \delta_{1101}A_{ijkl}X_{ijkl}Z_{ijkl} + \delta_{1011}A_{ijkl}W_{ijkl}Z_{ijkl} + \delta_{0111}X_{ijkl}W_{ijkl}Z_{ijkl} + \delta_{1111}A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl} \\
&+ v_{111l}A_{ijkl}X_{ijkl}W_{ijkl} + v_{011l}X_{ijkl}W_{ijkl} + v_{101l}A_{ijkl}W_{ijkl} + v_{110l}A_{ijkl}X_{ijkl} \\
&+ v_{001l}W_{ijkl} + v_{010l}X_{ijkl} + v_{100l}A_{ijkl} + v_{000l} \\
&+ u_{11kl}A_{ijkl}X_{ijkl} + u_{00kl} + u_{01kl}X_{ijkl} + u_{10kl}A_{ijkl} + r_{1jkl}A_{ijkl} + r_{0jkl} + e_{ijkl}.
\end{aligned} \tag{29}$$

For a Level-4 HLM analysis, the proportion of variance of individuals is

$$ICC_1 = \frac{\sigma_e^2}{\sigma_e^2 + \sigma_r^2 + \sigma_u^2 + \sigma_u^2}.$$

The proportion of variance among groups is

$$ICC_2 = \frac{\sigma_r^2}{\sigma_e^2 + \sigma_r^2 + \sigma_u^2 + \sigma_v^2}.$$

The proportion of variance among units is

$$ICC_3 = \frac{\sigma_r^2}{\sigma_e^2 + \sigma_r^2 + \sigma_u^2 + \sigma_v^2}.$$

The proportion of variance among organizations is

$$ICC_4 = \frac{\sigma_v^2}{\sigma_e^2 + \sigma_r^2 + \sigma_u^2 + \sigma_v^2}.$$

**Level-4 Derived Variance.**

For a Level-4 HLM,

$$\mathbf{Y}_{N\times 1} = \mathbf{M}_{N\times p}\delta_{p\times 1} + \varepsilon_{N\times 1}$$

where:

- $N$ is the total sample size, $N = nghf$, for number of Level-1 individuals, $n$, the number of Level-2 groups, $g$, the number of Level-3 units, $g$, and the number of Level-4 organizations, $f$;
- $p$ is the number of Level-4 coefficients ($\delta_{0000}, \delta_{0001}, \delta_{0010}$, $\delta_{0011}$, $\delta_{0100}$, $\delta_{0101}$, $\delta_{0110}$, $\delta_{0111}$, $\delta_{1000}$, $\delta_{1001}$, $\delta_{1010}$, $\delta_{1011}$, $\delta_{1100}$, $\delta_{1101}$, $\delta_{1110}$, $\delta_{1111}$).

In expanded form, this implies

$$
\begin{bmatrix} Y_{1111} \\ Y_{2111} \\ Y_{3111} \\ \vdots \\ Y_{n-1ghf} \\ Y_{nghf} \end{bmatrix}
=
\begin{bmatrix} 1 & A_{1111} & X_{1111} & W_{1111} & Z_{1111} & \cdots & A_{1111}X_{1111}W_{1111}Z_{1111} \\ 1 & A_{2111} & X_{2111} & W_{2111} & Z_{2111} & \cdots & A_{2111}X_{2111}W_{2111}Z_{2111} \\ 1 & A_{3111} & X_{3111} & W_{3111} & Z_{3111} & \cdots & A_{3111}X_{3111}W_{3111}Z_{3111} \\ & & & \vdots & & & \\ 1 & A_{n-1ghf} & X_{n-1ghf} & W_{n-1ghf} & Z_{n-1ghf} & \cdots & A_{n-1ghf}X_{n-1ghf}W_{n-1ghf}Z_{n-1ghf} \\ 1 & A_{nghf} & X_{nghf} & W_{nghf} & Z_{nghf} & \cdots & A_{nghf}X_{nghf}W_{nghf}Z_{nghf} \end{bmatrix}
\begin{bmatrix} \delta_{0000} \\ \delta_{0001} \\ \delta_{0010} \\ \delta_{0011} \\ \delta_{0100} \\ \delta_{0101} \\ \delta_{0110} \\ \delta_{0111} \\ \delta_{1000} \\ \delta_{1001} \\ \delta_{1010} \\ \delta_{1011} \\ \delta_{1100} \\ \delta_{1101} \\ \delta_{1110} \\ \delta_{1111} \end{bmatrix}
$$

$$
+
\begin{bmatrix} r_{1111}A_{1111} + u_{1011}A_{1111} + +v_{1001}A_{1111} + ... + v_{0001} + r_{0111} + u_{0011} + e_{1111} \\ r_{1111}A_{2111} + u_{1011}A_{2111} + +v_{1001}A_{2111} + ... + v_{0001} + r_{0111} + u_{0011} + e_{2111} \\ r_{1111}A_{3111} + u_{1011}A_{3111} + +v_{1001}A_{3111} + ... + v_{0001} + r_{0111} + u_{0011} + e_{3111} \\ \vdots \\ r_{1ghf}A_{n-1ghf} + u_{10hf}A_{n-1ghf} + +v_{100f}A_{n-1ghf} + ... + v_{000f} + r_{0ghf} + u_{00hf} + e_{n-1ghf} \\ r_{1ghf}A_{n-1ghf} + u_{10hf}A_{nghf} + +v_{100f}A_{nghf} + ... + v_{000f} + r_{0ghf} + u_{00hf} + e_{nghf} \end{bmatrix},
$$

for $\mathbf{Y} = [Y_{1111}, Y_{2111}, ..., Y_{nghf}]'$ and $Y_{ijkl} \sim N(\mathbf{M}\delta, \mathbf{\Sigma})$. Recall, $A_{ijkl}$, $X_{ijkl}, W_{ijkl}$, and $Z_{ijkl}$ are independent. Therefore,

$$
\begin{aligned}
\Sigma_{ijkl} &= Var(Y_{ijkl}) \\
&= Var(\delta_{0000} + \delta_{1000}A_{ijkl} + \delta_{0100}X_{ijkl} + \delta_{0010}W_{ijkl} + \delta_{0001}Z_{ijkl} + \delta_{1100}A_{ijkl}X_{ijkl} \\
&+ \delta_{1010}A_{ijkl}W_{ijkl} \\
&+ \delta_{1001}A_{ijkl}Z_{...} + \delta_{0110}X_{ijkl}W_{ijkl} + \delta_{0101}X_{ijkl}Z_{ijkl} + \delta_{0011}W_{ijkl}Z_{ijkl} + \delta_{1110}A_{ijkl}X_{ijkl}W_{ijkl} \\
&+ \delta_{1101}A_{ijkl}X_{ijkl}Z_{ijkl} + \delta_{1011}A_{ijkl}W_{ijkl}Z_{ijkl} + \delta_{0111}X_{ijkl}W_{ijkl}Z_{ijkl} \\
&+ \delta_{1111}A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl} \\
&+ v_{111l}A_{ijkl}X_{ijkl}W_{ijkl} + v_{011l}X_{ijkl}W_{ijkl} + v_{101l}A_{ijkl}W_{ijkl} + v_{110l}A_{ijkl}X_{ijkl} \\
&+ v_{001l}W_{ijkl} + v_{010l}X_{ijkl} + v_{100l}A_{ijkl} + v_{000l} \\
&+ u_{11kl}A_{ijkl}X_{ijkl} + u_{00kl} + u_{01kl}X_{ijkl} + u_{10kl}A_{ijkl} + r_{1jkl}A_{ijkl} + r_{0jkl} + e_{ijkl}) \\
\\
&= Var(\delta_{0000}) + Var(\delta_{1000}A_{ijkl}) + Var(\delta_{0100}X_{ijkl}) + Var(\delta_{0010}W_{ijkl}) + Var(\delta_{0001}Z_{ijkl}) \\
&+ Var(\delta_{1100}A_{ijkl}X_{ijkl}) + Var(\delta_{1010}A_{ijkl}W_{ijkl}) + Var(\delta_{1001}A_{ijkl}Z_{...}) + Var(\delta_{0110}X_{ijkl}W_{ijkl}) \\
&+ Var(\delta_{0101}X_{ijkl}Z_{ijkl}) + Var(\delta_{0011}W_{ijkl}Z_{ijkl}) + Var(\delta_{1110}A_{ijkl}X_{ijkl}W_{ijkl}) \\
&+ Var(\delta_{1101}A_{ijkl}X_{ijkl}Z_{ijkl}) + Var(\delta_{1011}A_{ijkl}W_{ijkl}Z_{ijkl}) + Var(\delta_{0111}X_{ijkl}W_{ijkl}Z_{ijkl}) \\
&+ Var(\delta_{1111}A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl}) + Var(v_{111l}A_{ijkl}X_{ijkl}W_{ijkl}) + Var(v_{011l}X_{ijkl}W_{ijkl}) \\
&+ Var(v_{101l}A_{ijkl}W_{ijkl}) + Var(v_{110l}A_{ijkl}X_{ijkl}) + Var(v_{001l}W_{ijkl}) + Var(v_{010l}X_{ijkl}) \\
&+ Var(v_{100l}A_{ijkl}) + Var(v_{000l}) + Var(u_{11kl}A_{ijkl}X_{ijkl}) + Var(u_{00kl}) + Var(u_{01kl}X_{ijkl}) \\
&+ Var(u_{10kl}A_{ijkl}) + Var(r_{1jkl}A_{ijkl}) + Var(r_{0jkl}) + Var(e_{ijkl}) \\
&= 0 + \delta_{1000}^2\sigma_A^2 + \delta_{0100}^2\sigma_X^2 + \delta_{0010}^2\sigma_W^2 + \delta_{0001}^2\sigma_Z^2 \\
&+ \delta_{1100}^2\sigma_A^2\sigma_X^2 + \delta_{1010}^2\sigma_A^2\sigma_W^2 + \delta_{1001}^2\sigma_A^2\sigma_Z^2 + \delta_{0110}^2\sigma_X^2\sigma_W^2 \\
&+ \delta_{0101}^2\sigma_X^2\sigma_Z^2 + \delta_{0011}^2\sigma_W^2\sigma_Z^2 + \delta_{1110}^2\sigma_A^2\sigma_X^2\sigma_W^2 \\
&+ \delta_{1101}^2\sigma_A^2\sigma_X^2\sigma_Z^2 + \delta_{1011}^2\sigma_A^2\sigma_W^2\sigma_Z^2 + \delta_{0111}^2\sigma_X^2\sigma_W^2\sigma_Z^2
\end{aligned}
$$

$$
\begin{aligned}
&+ \delta^2_{1111}\sigma^2_A\sigma^2_X\sigma^2_W\sigma^2_Z + \sigma^2_r + \sigma^2_u + \sigma^2_v + \sigma^2_r\sigma^2_A \\
&+ \sigma^2_u\sigma^2_A + \sigma^2_u\sigma^2_X + \sigma^2_u\sigma^2_A\sigma^2_X + \sigma^2_v\sigma^2_A + \sigma^2_v\sigma^2_X + \sigma^2_v\sigma^2_W + \sigma^2_v\sigma^2_A\sigma^2_X + \sigma^2_v\sigma^2_A\sigma^2_W \\
&+ \sigma^2_v\sigma^2_X\sigma^2_W + \sigma^2_v\sigma^2_A\sigma^2_X\sigma^2_W + \sigma^2_e \\
\\
&= \delta^2_{1000}\sigma^2_A + \delta^2_{0100}\sigma^2_X + \delta^2_{0010}\sigma^2_W + \delta^2_{0001}\sigma^2_Z \\
&+ \delta^2_{1100}\sigma^2_A\sigma^2_X + \delta^2_{1010}\sigma^2_A\sigma^2_W + \delta^2_{1001}\sigma^2_A\sigma^2_Z + \delta^2_{0110}\sigma^2_X\sigma^2_W \\
&+ \delta^2_{0101}\sigma^2_X\sigma^2_Z + \delta^2_{0011}\sigma^2_W\sigma^2_Z + \delta^2_{1110}\sigma^2_A\sigma^2_X\sigma^2_W \\
&+ \delta^2_{1101}\sigma^2_A\sigma^2_X\sigma^2_Z + \delta^2_{1011}\sigma^2_A\sigma^2_W\sigma^2_Z + \delta^2_{0111}\sigma^2_X\sigma^2_W\sigma^2_Z \\
&+ \delta^2_{1111}\sigma^2_A\sigma^2_X\sigma^2_W\sigma^2_Z + \sigma^2_r + \sigma^2_u + \sigma^2_v + \sigma^2_r\sigma^2_A \\
&+ \sigma^2_u\sigma^2_A + \sigma^2_u\sigma^2_X + \sigma^2_u\sigma^2_A\sigma^2_X + \sigma^2_v\sigma^2_A + \sigma^2_v\sigma^2_X + \sigma^2_v\sigma^2_W + \sigma^2_v\sigma^2_A\sigma^2_X + \sigma^2_v\sigma^2_A\sigma^2_W \\
&+ \sigma^2_v\sigma^2_X\sigma^2_W + \sigma^2_v\sigma^2_A\sigma^2_X\sigma^2_W + \sigma^2_e \\
&= \sigma^2_{Level-4}
\end{aligned}
$$

such that

$$
\mathbf{\Sigma} = \begin{bmatrix}
\delta^2_{1000}\sigma^2_A + ... + \sigma^2_u + \sigma^2_v & 0 & \dots & 0 \\
+ ... + \sigma^2_v\sigma^2_A\sigma^2_X\sigma^2_W + \sigma^2_e & & & \\
0 & \delta^2_{1000}\sigma^2_A + ... + \sigma^2_u + \sigma^2_v & \dots & 0 \\
 & + ... + \sigma^2_v\sigma^2_A\sigma^2_X\sigma^2_W + \sigma^2_e & & \\
0 & 0 & \ddots & 0 \\
0 & 0 & \dots & \delta^2_{1000}\sigma^2_A + ... + \sigma^2_u + \sigma^2_v \\
 & & & + ... + \sigma^2_v\sigma^2_A\sigma^2_X\sigma^2_W + \sigma^2_e
\end{bmatrix}.
$$

For the standard errors of the Level-4 model coefficients, consider

$\mathbf{D}_{Level-4} = \mathbf{M}'_{Level-4}\mathbf{M}_{Level-4}$. Then,

$\mathbf{D}_{Level-4} =$

$$\begin{bmatrix} 1 & \dots & 1 \\ A_{1111} & \dots & A_{nghf} \\ X_{.111} & \dots & X_{.ghf} \\ W_{..11} & \dots & W_{..hf} \\ Z_{...1} & \dots & Z_{...f} \\ \vdots & \ddots & \vdots \\ A_{1111}X_{.111}W_{..11}Z_{...1} & \dots & A_{nghf}X_{.ghf}W_{..hf}Z_{...f} \end{bmatrix} \begin{bmatrix} 1 & A_{1111} & X_{.111} & ... & A_{1111}X_{.111}W_{..11}Z_{...1} \\ 1 & A_{1112} & X_{.112} & ... & A_{1112}X_{.112}W_{..12}Z_{...2} \\ 1 & A_{1113} & X_{.113} & ... & A_{1113}X_{.113}W_{..13}Z_{...3} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ 1 & A_{nghf} & X_{.ghf} & ... & A_{nghf}X_{.ghf}W_{..hf}Z_{...f} \end{bmatrix}$$

$$= \begin{bmatrix} \sum_{k=1}^{f}\sum_{j=1}^{g}\sum_{i=1}^{n} 1 & ... & \sum_{k=1}^{f}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl} \\ \sum_{k=1}^{f}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl} & ... & \sum_{k=1}^{f}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2X_{ijkl}W_{ijkl}Z_{ijkl} \\ \vdots & \ddots & \vdots \\ \sum_{k=1}^{f}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl} & ... & \sum_{k=1}^{f}\sum_{j=1}^{g}\sum_{i=1}^{n} (A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl})^2 \end{bmatrix}$$

$$= \begin{bmatrix} d_{1,1} & d_{1,2} & d_{1,3} & d_{1,4} & d_{1,5} & d_{1,6} & d_{1,7} & d_{1,8} & ... & d_{1,16} \\ d_{2,1} & d_{2,2} & d_{2,3} & d_{2,4} & d_{2,5} & d_{2,6} & d_{2,7} & d_{2,8} & ... & d_{2,16} \\ d_{3,1} & d_{3,2} & d_{3,3} & d_{3,4} & d_{3,5} & d_{3,6} & d_{3,7} & d_{3,8} & ... & d_{3,16} \\ d_{4,1} & d_{4,2} & d_{4,3} & d_{4,4} & d_{4,5} & d_{4,6} & d_{4,7} & d_{4,8} & ... & d_{4,16} \\ d_{5,1} & d_{5,2} & d_{5,3} & d_{5,4} & d_{5,5} & d_{5,6} & d_{5,7} & d_{5,8} & ... & d_{5,16} \\ d_{6,1} & d_{6,2} & d_{6,3} & d_{6,4} & d_{6,5} & d_{6,6} & d_{6,7} & d_{6,8} & ... & d_{6,16} \\ d_{7,1} & d_{7,2} & d_{7,3} & d_{7,4} & d_{7,5} & d_{7,6} & d_{7,7} & d_{7,8} & ... & d_{7,16} \\ \vdots & & & & \ddots & & & & ... & \vdots \\ d_{16,1} & d_{16,2} & d_{16,3} & d_{16,4} & d_{16,5} & d_{16,6} & d_{16,7} & d_{16,8} & ... & d_{16,16} \end{bmatrix},$$

which consists of the following elements:

$$d_{1,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} 1,$$

$$d_{1,2} = d_{2,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl},$$

$$d_{1,3} = d_{3,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl},$$

$$d_{1,4} = d_{4,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} W_{ijkl},$$

$$d_{1,5} = d_{5,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} Z_{ijkl},$$

$$d_{1,6} = d_{2,3} = d_{3,2} = d_{6,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl},$$

$$d_{1,7} = d_{2,4} = d_{4,2} = d_{7,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}W_{ijkl},$$

$$d_{1,8} = d_{2,5} = d_{5,2} = d_{8,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}Z_{ijkl},$$

$$d_{1,9} = d_{3,4} = d_{4,3} = d_{9,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}W_{ijkl},$$

$$d_{1,10} = d_{3,5} = d_{5,3} = d_{10,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}Z_{ijkl},$$

$$d_{1,11} = d_{4,5} = d_{5,4} = d_{11,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} W_{ijkl}Z_{ijkl},$$

$$d_{1,12} = d_{2,9} = d_{3,7} = d_{4,6} = d_{6,4} = d_{7,3} = d_{9,2} = d_{12,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}W_{ijkl},$$

$$d_{1,13} = d_{2,10} = d_{3,8} = d_{8,3} = d_{10,2} = d_{13,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}Z_{ijkl},$$

$$d_{1,14} = d_{2,11} = d_{4,8} = d_{5,7} = d_{7,5} = d_{8,4} = d_{11,2} = d_{14,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}W_{ijkl}Z_{ijkl},$$

$$d_{1,15} = d_{3,11} = d_{4,10} = d_{5,9} = d_{9,5} = d_{10,4} = d_{11,3} = d_{15,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}W_{ijkl}Z_{ijkl},$$

$$d_{1,16} = d_{2,15} = d_{3,14} = d_{4,13} = d_{5,12} = d_{6,11} = d_{7,10} = d_{8,9} = d_{9,8} = d_{10,7}$$

$$= d_{11,6} = d_{12,5} = d_{13,4} = d_{14,3} = d_{15,2} = d_{16,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl},$$

$$d_{2,2} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2,$$

$$d_{2,6} = d_{6,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 X_{ijkl},$$

$$d_{2,7} = d_{7,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 W_{ijkl},$$

$$d_{2,8} = d_{8,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 Z_{ijkl},$$

$$d_{2,12} = d_{6,7} = d_{7,6} = d_{12,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 X_{ijkl} W_{ijkl},$$

$$d_{2,13} = d_{6,8} = d_{8,6} = d_{13,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 X_{ijkl} Z_{ijkl},$$

$$d_{2,14} = d_{7,8} = d_{8,7} = d_{14,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 W_{ijkl} Z_{ijkl},$$

$$d_{2,16} = d_{6,14} = d_{7,13} = d_{8,12} = d_{12,8} = d_{13,7} = d_{14,6} = d_{16,2}$$
$$= \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 X_{ijkl} W_{ijkl} Z_{ijkl},$$

$$d_{3,3} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}^2,$$

$$d_{3,6} = d_{6,3} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl} X_{ijkl}^2,$$

$$d_{3,9} = d_{9,3} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl} W_{ijkl}^2,$$

$$d_{3,10} = d_{10,3} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}^2 Z_{ijkl},$$

$$d_{3,12} = d_{6,9} = d_{9,6} = d_{12,3} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl} X_{ijkl}^2 W_{ijkl},$$

$$d_{3,13} = d_{6,10} = d_{10,6} = d_{13,3} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl} X_{ijkl}^2 Z_{ijkl},$$

$$d_{3,15} = d_{9,10} = d_{10,9} = d_{15,3} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}^2 W_{ijkl} 2 Z_{ijkl},$$

$$d_{3,16} = d_{6,15} = d_{9,13} = d_{10,12} = d_{12,10} = d_{13,9} = d_{15,6} = d_{16,3} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl} X_{ijkl}^2 W_{ijkl} Z_{ijkl},$$

$$d_{4,4} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} W_{ijkl}^2,$$

$$d_{4,7} = d_{7,4} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}W_{ijkl}^2,$$

$$d_{4,9} = d_{9,4} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}W_{ijkl}^2,$$

$$d_{4,11} = d_{11,4} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} W_{ijkl}^2 Z_{ijkl},$$

$$d_{4,12} = d_{7,9} = d_{9,7} = d_{12,4} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}W_{ijkl}^2,$$

$$d_{4,14} = d_{7,11} = d_{11,7} = d_{14,4} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}W_{ijkl}^2 Z_{ijkl},$$

$$d_{4,15} = d_{9,11} = d_{11,9} = d_{15,4} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}W_{ijkl}^2 Z_{ijkl},$$

$$d_{4,16} = d_{7,15} = d_{11,12} = d_{12,11} = d_{15,7} = d_{16,4} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}W_{ijkl}^2 Z_{ijkl},$$

$$d_{5,5} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} Z_{ijkl}^2,$$

$$d_{5,6} = d_{6,5} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}Z_{ijkl}^2,$$

$$d_{5,10} = d_{10,5} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}Z_{ijkl}^2,$$

$$d_{5,11} = d_{11,5}\sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} W_{ijkl}Z_{ijkl}^2,$$

$$d_{5,13} = d_{8,10} = d_{10,8} = d_{13,5} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}Z_{ijkl}^2,$$

$$d_{5,14} = d_{8,11} = d_{11,8} = d_{14,5} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}W_{ijkl}Z_{ijkl}^2,$$

$$d_{5,15} = d_{10,11} = d_{11,10} = d_{15,5} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}W_{ijkl}Z_{ijkl}^2,$$

$$d_{5,16} = d_{8,15} = d_{10,14} = d_{11,13} = d_{13,11} = d_{14,10} = d_{15,8}$$

$$= d_{16,5} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl}^2,$$

$$d_{6,6} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}(A_{ijkl}X_{ijkl})^2,$$

$$d_{6,12} = d_{12,6} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2X_{ijkl}^2W_{ijkl},$$

$$d_{6,13} = d_{13,6} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2X_{ijkl}^2Z_{ijkl},$$

$$d_{6,16} = d_{12,13} = d_{13,12} = d_{16,6} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2X_{ijkl}^2W_{ijkl}Z_{ijkl},$$

$$d_{7,7} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}(A_{ijkl}W_{ijkl})^2,$$

$$d_{7,12} = d_{12,7} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2X_{ijkl}W_{ijkl}^2,$$

$$d_{7,14} = d_{14,7} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2W_{ijkl}^2Z_{ijkl},$$

$$d_{7,16} = d_{12,14} = d_{14,12} = d_{16,7} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2X_{ijkl}W_{ijkl}^2Z_{ijkl},$$

$$d_{8,8} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}(A_{ijkl}Z_{ijkl})^2,$$

$$d_{8,13} = d_{13,8} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2X_{ijkl}Z_{ijkl}^2,$$

$$d_{8,14} = d_{14,8} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2W_{ijkl}Z_{ijkl}^2,$$

$$d_{8,16} = d_{13,14} = d_{14,13} = d_{16,8} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2X_{ijkl}W_{ijkl}Z_{ijkl}^2,$$

$$d_{9,9} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}(X_{ijkl}W_{ijkl})^2,$$

$$d_{9,12} = d_{12,9} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}(X_{ijkl}W_{ijkl})^2,$$

$$d_{9,14} = d_{14,9} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}W_{ijkl}^2Z_{ijkl},$$

$$d_{9,15} = d_{15,9} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}^2W_{ijkl}^2Z_{ijkl},$$

$$d_{9,16} = d_{12,15} = d_{15,12} = d_{16,9} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}^2W_{ijkl}^2Z_{ijkl},$$

$$d_{10,10} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} (X_{ijkl}Z_{ijkl})^2,$$

$$d_{10,11} = d_{11,10} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}^2Z_{ijkl}^2,$$

$$d_{10,15} = d_{15,10} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}^2W_{ijkl}Z_{ijkl}^2,$$

$$d_{10,16} = d_{13,15} = d_{15,13} = d_{16,10} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}^2W_{ijkl}Z_{ijkl}^2,$$

$$d_{11,11} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} (W_{ijkl}Z_{ijkl})^2,$$

$$d_{11,14} = d_{14,11} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}W_{ijkl}Z_{ijkl}^2,$$

$$d_{11,15} = d_{15,11} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}W_{ijkl}^2Z_{ijkl}^2,$$

$$d_{11,16} = d_{14,15} = d_{15,14} = d_{16,11} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}W_{ijkl}^2Z_{ijkl}^2,$$

$$d_{12,12} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} (A_{ijkl}X_{ijkl}W_{ijkl})^2,$$

$$d_{12,16} = d_{16,12} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2X_{ijkl}^2W_{ijkl}^2Z_{ijkl},$$

$$d_{13,13} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} (A_{ijkl}X_{ijkl}Z_{ijkl})^2,$$

$$d_{13,16} = d_{16,13} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2X_{ijkl}^2W_{ijkl}Z_{ijkl}^2,$$

$$d_{14,14} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}(A_{ijkl}W_{ijkl}Z_{ijkl})^2,$$

$$d_{14,16} = d_{16,14} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}A_{ijkl}^2X_{ijkl}W_{ijkl}^2Z_{ijkl}^2,$$

$$d_{15,15} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}(X_{ijkl}W_{ijkl}Z_{ijkl})^2,$$

$$d_{15,16} = d_{16,15} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}A_{ijkl}X_{ijkl}^2W_{ijkl}^2Z_{ijkl}^2,$$

$$d_{16,16} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}(A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl})^2.$$

The standard error of each parameter $\hat{\delta}_{\mathbf{ijkl}}$ are the analogous diagonal elements derived in Appendix A. That is, generally $s.e.(\mu) = \sqrt{\mathbf{\Sigma(M'M)^{-1}}}$ (Appendix A). Therefore, for a Level-4 HLM $s.e.(\hat{\delta}) = \sqrt{\sigma^2_{Level-4}\mathbf{I}_{N\times N}\mathbf{D}^{-1}_{Level-4}}$. If the Level-4 HLM predictors have the following distributions $A_{ijkl} \sim N(0, \sigma_A^2)$, $X_{ijkl} \sim N(0, \sigma_X^2)$, $W_{ijkl} \sim N(0, \sigma_W^2)$, and $Z_{ijkl} \sim N(0, \sigma_Z^2)$, then the elements of $\mathbf{D}_{Level-4}$ are:

$$d_{1,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}1 = nghf = N,$$

$$d_{1,2} = d_{2,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}A_{ijkl} = nghfE[A_{ijkl}] = N\mu_A = N(0) = 0,$$

$$d_{1,3} = d_{3,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}X_{ijkl} = nghfE[X_{ijkl}] = N\mu_X = N(0) = 0,$$

$$d_{1,4} = d_{4,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}W_{ijkl} = nghfE[W_{ijkl}] = N\mu_W = N(0) = 0,$$

$$d_{1,5} = d_{5,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}Z_{ijkl} = nghfE[Z_{ijkl}] = N\mu_Z = N(0) = 0,$$

$$d_{1,6} = d_{2,3} = d_{3,2} = d_{6,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}A_{ijkl}X_{ijkl} = nghfE[A_{ijkl}X_{ijkl}]$$

$$= N(cov(A_{ijkl}, X_{ijkl}) + E[A_{ijkl}]E[X_{ijkl}]) = N(cov(A_{ijkl}, X_{ijkl}) + \mu_A\mu_X)$$

$$= N(0 + (0)(0)) = 0,$$

$$d_{1,7} = d_{2,4} = d_{4,2} = d_{7,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}W_{ijkl} = nghfE[A_{ijkl}W_{ijkl}]$$

$$= N(cov(A_{ijkl}, W_{ijkl}) + E[A_{ijkl}]E[W_{ijkl}]) = N(cov(A_{ijkl}, W_{ijkl}) + \mu_A\mu_W)$$

$$= N(0 + (0)(0)) = 0,$$

$$d_{1,8} = d_{2,5} = d_{5,2} = d_{8,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}Z_{ijkl} = nghfE[A_{ijkl}Z_{ijkl}]$$

$$= N(cov(A_{ijkl}, Z_{ijkl}) + E[A_{ijkl}]E[Z_{ijkl}]) = N(cov(A_{ijkl}, Z_{ijkl}) + \mu_A\mu_Z)$$

$$= N(0 + (0)(0)) = 0,$$

$$d_{1,9} = d_{3,4} = d_{4,3} = d_{9,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}W_{ijkl} = nghfE[A_{ijkl}W_{ijkl}]$$

$$= N(cov(A_{ijkl}, W_{ijkl}) + E[A_{ijkl}]E[W_{ijkl}]) = N(cov(A_{ijkl}, W_{ijkl}) + \mu_A\mu_W)$$

$$= N(0 + (0)(0)) = 0,$$

$$d_{1,10} = d_{3,5} = d_{5,3} = d_{10,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}Z_{ijkl} = nghfE[X_{ijkl}Z_{ijkl}]$$

$$= N(cov(X_{ijkl}, Z_{ijkl}) + E[X_{ijkl}]E[Z_{ijkl}]) = N(cov(X_{ijkl}, Z_{ijkl}) + \mu_X\mu_Z),$$

$$= N(0 + (0)(0)) = 0,$$

$$d_{1,11} = d_{4,5} = d_{5,4} = d_{11,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} W_{ijkl}Z_{ijkl} = nghfE[W_{ijkl}Z_{ijkl}]$$

$$= N(cov(W_{ijkl}, Z_{ijkl}) + E[W_{ijkl}]E[Z_{ijkl}]) = N(cov(W_{ijkl}, Z_{ijkl}) + \mu_W\mu_Z)$$

$$= N(0 + (0)(0)) = 0,$$

$$d_{1,12} = d_{2,9} = d_{3,7} = d_{4,6} = d_{6,4} = d_{7,3} = d_{9,2} = d_{12,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}W_{ijkl}$$

$$= nghfE[A_{ijkl}X_{ijkl}W_{ijkl}] = N(cov(A_{ijkl}X_{ijkl}, W_{ijkl}) + E[A_{ijkl}X_{ijkl}]E[W_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}, X_{ijkl}) + E[A_{ijk}]E[X_{ijk}])E[W_{ijkl}])$$

$$= N(0 + (0 + \mu_A\mu_X)\mu_W) = N(0 + (0 + (0)(0))0) = 0,$$

$$d_{1,13} = d_{2,10} = d_{3,8} = d_{8,3} = d_{10,2} = d_{13,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}Z_{ijkl}$$

$$= nghfE[A_{ijkl}X_{ijkl}Z_{ijkl}] = N(cov(A_{ijkl}X_{ijkl}, Z_{ijkl}) + E[A_{ijkl}X_{ijkl}]E[Z_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}, X_{ijkl}) + E[A_{ijk}]E[X_{ijk}])E[Z_{ijkl}])$$

$$= N(0 + (0 + \mu_A\mu_X)\mu_Z) = N(0 + (0 + (0)(0))0) = 0,$$

$$d_{1,14} = d_{2,11} = d_{4,8} = d_{5,7} = d_{7,5} = d_{8,4} = d_{11,2} = d_{14,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}W_{ijkl}Z_{ijkl}$$

$$= nghfE[A_{ijkl}W_{ijkl}Z_{ijkl}] = N(cov(A_{ijkl}W_{ijkl}, Z_{ijkl}) + E[A_{ijkl}W_{ijkl}]E[Z_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}, W_{ijkl}) + E[A_{ijk}]E[W_{ijk}])E[Z_{ijkl}])$$

$$= N(0 + (0 + \mu_A\mu_W)\mu_Z) = N(0 + (0 + (0)(0))0) = 0,$$

$$d_{1,15} = d_{3,11} = d_{4,10} = d_{5,9} = d_{9,5} = d_{10,4} = d_{11,3} = d_{15,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}W_{ijkl}Z_{ijkl}$$

$$= nghfE[X_{ijkl}W_{ijkl}Z_{ijkl}] = N(cov(X_{ijkl}W_{ijkl}, Z_{ijkl}) + E[X_{ijkl}W_{ijkl}]E[Z_{ijkl}])$$

$$= N(0 + (cov(X_{ijkl}, W_{ijkl}) + E[X_{ijk}]E[W_{ijk}])E[Z_{ijkl}])$$

$$= N(0 + (0 + \mu_X\mu_W)\mu_Z) = N(0 + (0 + (0)(0))0) = 0,$$

$$d_{1,16} = d_{2,15} = d_{3,14} = d_{4,13} = d_{5,12} = d_{6,11} = d_{7,10} = d_{8,9} = d_{9,8} = d_{10,7}$$

$$= d_{11,6} = d_{12,5} = d_{13,4} = d_{14,3} = d_{15,2} = d_{16,1} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl}$$

$$= nghfE[A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl}]$$

$$= N(cov(A_{ijkl}X_{ijkl}, W_{ijkl}Z_{ijkl}) + E[A_{ijkl}X_{ijkl}]E[W_{ijkl}Z_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}, X_{ijkl}) + E[A_{ijkl}]E[X_{ijkl}])(cov(W_{ijkl}, Z_{ijkl}) + E[W_{ijkl}]E[Z_{ijkl}]))$$

$$= N(0 + (0 + \mu_A\mu_X)(0 + \mu_W\mu_Z)) = N(0 + (0 + (0)(0))(0 + (0)(0))) = 0,$$

$$d_{2,2} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 = nghfE[A_{ijkl}^2] = N(^2_A + \mu_A^2) = N(\sigma_A^2 + 0) = N\sigma_A^2,$$

$$d_{2,6} = d_{6,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2X_{ijkl} = nghfE[A_{ijkl}^2X_{ijkl}]$$

$$= N(cov(A_{ijkl}^2, X_{ijkl}) + E[A_{ijkl}^2]E[X_{ijkl}]) = N(0 + (\sigma_A^2 + \mu_A^2)\mu_X)$$

$$= N(0 + (\sigma_A^2 + 0)0) = 0,$$

$$d_{2,7} = d_{7,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 W_{ijkl} = nghfE[A_{ijkl}^2 W_{ijkl}]$$

$$= N(cov(A_{ijkl}^2, W_{ijkl}) + E[A_{ijkl}^2]E[W_{ijkl}]) = N(0 + (\sigma_A^2 + \mu_A^2)\mu_W)$$

$$= N(0 + (\sigma_A^2 + 0)0) = 0,$$

$$d_{2,8} = d_{8,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 Z_{ijkl} = nghfE[A_{ijkl}^2 Z_{ijkl}]$$

$$= N(cov(A_{ijkl}^2, Z_{ijkl}) + E[A_{ijkl}^2]E[Z_{ijkl}]) = N(0 + (\sigma_A^2 + \mu_A^2)\mu_Z)$$

$$= N(0 + (\sigma_A^2 + 0)0) = 0,$$

$$d_{2,12} = d_{6,7} = d_{7,6} = d_{12,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 X_{ijkl} W_{ijkl} = nghfE[A_{ijkl}^2 X_{ijkl} W_{ijkl}]$$

$$= N(cov(A_{ijkl}^2 X_{ijkl}, W_{ijkl}) + E[A_{ijkl}^2 X_{ijkl}]E[W_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}^2, X_{ijkl}) + E[A_{ijkl}^2]E[X_{ijkl}])E[W_{ijkl}])$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)\mu_X)\mu_W) = N(0 + (0 + (\sigma_A^2 + (0))0)0) = 0,$$

$$d_{2,13} = d_{6,8} = d_{8,6} = d_{13,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 X_{ijkl} Z_{ijkl} = nghfE[A_{ijkl}^2 X_{ijkl} Z_{ijkl}]$$

$$= N(cov(A_{ijkl}^2 X_{ijkl}, Z_{ijkl}) + E[A_{ijkl}^2 X_{ijkl}]E[Z_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}^2, X_{ijkl}) + E[A_{ijkl}^2]E[X_{ijkl}])E[Z_{ijkl}])$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)\mu_X)\mu_Z) = N(0 + (0 + (\sigma_A^2 + (0))0)0) = 0,$$

$$d_{2,14} = d_{7,8} = d_{8,7} = d_{14,2} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 W_{ijkl} Z_{ijkl} = nghfE[A_{ijkl}^2 W_{ijkl} Z_{ijkl}]$$

$$= N(cov(A_{ijkl}^2 W_{ijkl}, Z_{ijkl}) + E[A_{ijkl}^2 W_{ijkl}]E[Z_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}^2, W_{ijkl}) + E[A_{ijkl}^2]E[W_{ijkl}])E[Z_{ijkl}])$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)\mu_W)\mu_Z) = N(0 + (0 + (\sigma_A^2 + (0))0)0) = 0,$$

$$d_{2,16} = d_{6,14} = d_{7,13} = d_{8,12} = d_{12,8} = d_{13,7} = d_{14,6} = d_{16,2}$$

$$= \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 X_{ijkl} W_{ijkl} Z_{ijkl} = nghfE[A_{ijkl}^2 X_{ijkl} W_{ijkl} Z_{ijkl}]$$

$$= N(cov(A_{ijkl}^2 X_{ijkl}, W_{ijkl} Z_{ijkl}) + E[A_{ijkl}^2 X_{ijkl}] E[W_{ijkl} Z_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}^2, X_{ijkl}) + E[A_{ijkl}^2] E[X_{ijkl}])(cov(W_{ijkl}, Z_{ijkl}) + E[W_{ijkl}] E[Z_{ijkl}]))$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)\mu_X)(0 + \mu_W \mu_Z)) = N(0 + (0 + (\sigma_A^2 + 0)0)(0 + (0)(0))) = 0,$$

$$d_{3,3} = \sum_{l=1}^{f} \sum_{k=1}^{h} \sum_{j=1}^{g} \sum_{i=1}^{n} X_{ijkl}^2 = nghf E[X_{ijkl}^2] = N(\sigma_X^2 + \mu_X^2) = N(\sigma_X^2 + 0) = N\sigma_X^2,$$

$$d_{3,6} = d_{6,3} = \sum_{k=1}^{h} \sum_{j=1}^{g} \sum_{i=1}^{n} A_{ijkl} X_{ijkl}^2 = nghf E[A_{ijkl} X_{ijkl}^2]$$

$$= N(cov(A_{ijkl}, X_{ijkl}^2) + E[A_{ijkl}] E[X_{ijkl}^2]) = N(0 + \mu_A(\sigma_X^2 + \mu_X))$$

$$= N(0 + 0(\sigma_X^2 + 0)) = 0,$$

$$d_{3,9} = d_{9,3} = \sum_{k=1}^{h} \sum_{j=1}^{g} \sum_{i=1}^{n} X_{ijkl} W_{ijkl}^2 = nghf E[X_{ijkl} W_{ijkl}^2]$$

$$= N(cov(X_{ijkl}, W_{ijkl}^2) + E[X_{ijkl}] E[W_{ijkl}^2]) = N(0 + \mu_X(\sigma_W^2 + \mu_W))$$

$$= N(0 + 0(\sigma_W^2 + 0)) = 0,$$

$$d_{3,10} = d_{10,3} = \sum_{k=1}^{h} \sum_{j=1}^{g} \sum_{i=1}^{n} X_{ijkl}^2 Z_{ijkl} = nghf E[X_{ijkl}^2 Z_{ijkl}]$$

$$= N(cov(X_{ijkl}^2, Z_{ijkl}) + E[X_{ijkl}^2] E[Z_{ijkl}]) = N(0 + (\sigma_X^2 + \mu_X)\mu_Z)$$

$$= N(0 + (\sigma_X^2 + 0)0) = 0,$$

$$d_{3,12} = d_{6,9} = d_{9,6} = d_{12,3} = \sum_{k=1}^{h} \sum_{j=1}^{g} \sum_{i=1}^{n} A_{ijkl} X_{ijkl}^2 W_{ijkl} = nghf E[A_{ijkl} X_{ijkl}^2 W_{ijkl}]$$

$$= N(cov(A_{ijkl} X_{ijkl}^2, W_{ijkl}) + E[A_{ijkl} X_{ijkl}^2] E[W_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}, X_{ijkl}^2) + E[A_{ijkl}] E[X_{ijkl}^2])\mu_W)$$

$$= N(0 + (0 + \mu_A(\sigma_X^2 + \mu_X^2))\mu_W) = N(0 + (0 + 0(\sigma_X^2 + 0))0) = 0,$$

$$d_{3,13} = d_{6,10} = d_{10,6} = d_{13,3} = \sum_{k=1}^{h} \sum_{j=1}^{g} \sum_{i=1}^{n} A_{ijkl} X_{ijkl}^2 Z_{ijkl} == nghf E[A_{ijkl} X_{ijkl}^2 Z_{ijkl}]$$

$$= N(cov(A_{ijkl} X_{ijkl}^2, Z_{ijkl}) + E[A_{ijkl} X_{ijkl}^2] E[Z_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}, X_{ijkl}^2) + E[A_{ijkl}] E[X_{ijkl}^2])\mu_Z)$$

$$= N(0 + (0 + \mu_A(\sigma_X^2 + \mu_X^2))\mu_Z) = N(0 + (0 + 0(\sigma_X^2 + 0))0) = 0,$$

$$d_{3,15} = d_{9,10} = d_{10,9} = d_{15,3} = \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}^2 W_{ijkl} Z_{ijkl} = nghfE[X_{ijkl}^2 W_{ijkl} Z_{ijkl}]$$

$$= N(cov(X_{ijkl}^2, W_{ijkl} Z_{ijkl}) + E[X_{ijkl}^2]E[W_{ijkl} Z_{ijkl}])$$

$$= N(0 + (\sigma_X^2 + \mu_X^2)(cov(W_{ijkl}, Z_{ijkl}) + E[W_{ijkl}]E[Z_{ijkl}]))$$

$$= N(0 + (\sigma_X^2 + \mu_X^2)(0 + \mu_W \mu_Z)) = N(0 + (\sigma_X^2 + 0)(0 + (0)(0))) = 0,$$

$$d_{3,16} = d_{6,15} = d_{9,13} = d_{10,12} = d_{12,10} = d_{13,9} = d_{15,6} = d_{16,3}$$

$$= \sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl} X_{ijkl}^2 W_{ijkl} Z_{ijkl} = nghfE[A_{ijkl} X_{ijkl}^2 W_{ijkl} Z_{ijkl}]$$

$$= N(cov(A_{ijkl} X_{ijkl}^2, W_{ijkl} Z_{ijkl}) + E[A_{ijkl} X_{ijkl}^2]E[W_{ijkl} Z_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}, X_{ijkl}^2) + E[A_{ijkl}]E[X_{ijkl}^2])(cov(W_{ijkl}, Z_{ijkl}]) + E[W_{ijkl}]E[Z_{ijkl}]))$$

$$= N(0 + (0 + \mu_A(\sigma_X^2 + \mu_X^2))(0 + \mu_W \mu_Z))$$

$$= N(0 + (0 + 0(\sigma_X^2 + 0))(0 + (0)(0))) = 0,$$

$$d_{4,4} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} W_{ijkl}^2 = nghfE[W_{ijkl}^2] = N(\sigma_W^2 + \mu_W^2) == N(\sigma_W^2 + 0) = N\sigma_W^2,$$

$$d_{4,7} = d_{7,4} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl} W_{ijkl}^2 = nghfE[A_{ijkl} W_{ijkl}^2]$$

$$= N(cov(A_{ijkl}, W_{ijkl}^2) + E[A_{ijkl}]E[W_{ijkl}^2]) = N(0 + \mu_A(\sigma_W^2 + \mu_W))$$

$$= N(0 + 0(\sigma_W^2 + 0)) = 0,$$

$$d_{4,9} = d_{9,4} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl} W_{ijkl}^2 = nghfE[X_{ijkl} W_{ijkl}^2]$$

$$= N(cov(X_{ijkl}, W_{ijkl}^2) + E[X_{ijkl}]E[W_{ijkl}^2]) = N(0 + \mu_X(\sigma_W^2 + \mu_W))$$

$$= N(0 + 0(\sigma_W^2 + 0)) = 0,$$

$$d_{4,11} = d_{11,4} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} W_{ijkl}^2 Z_{ijkl} = nghfE[W_{ijkl}^2 Z_{ijkl}]$$

$$= N(cov(W_{ijkl}^2, Z_{ijkl}) + E[W_{ijkl}^2]E[Z_{ijkl}]) = N(0 + (\sigma_W^2 + \mu_W)\mu_Z)$$

$$= N(0 + (\sigma_W^2 + 0)0) = 0,$$

$$d_{4,12} = d_{7,9} = d_{9,7} = d_{12,4} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}W_{ijkl}^2 = nghfE[A_{ijkl}X_{ijkl}W_{ijkl}^2]$$

$$= N(cov(A_{ijkl}X_{ijkl}, W_{ijkl}^2) + E[A_{ijkl}X_{ijkl}]E[W_{ijkl}^2])$$

$$= N(0 + (cov(A_{ijkl}, X_{ijkl}) + E[A_{ijkl}]E[X_{ijkl}])(\sigma_W^2 + \mu_W))$$

$$= N(0 + (0 + \mu_A\mu_X)(\sigma_W^2 + \mu_W)) = N(0 + (0 + (0)(0))(\sigma_W^2 + 0)) = 0,$$

$$d_{4,14} = d_{7,11} = d_{11,7} = d_{14,4} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}W_{ijkl}^2Z_{ijkl} = nghfE[A_{ijkl}W_{ijkl}^2Z_{ijkl}]$$

$$= N(cov(A_{ijkl}, W_{ijkl}^2Z_{ijkl}) + E[A_{ijkl}]E[W_{ijkl}^2Z_{ijkl}])$$

$$= N(0 + \mu_A(cov(W_{ijkl}^2, Z_{ijkl}) + E[W_{ijkl}^2]E[Z_{ijkl}]))$$

$$= N(0 + \mu_A(0 + (\sigma_W^2 + \mu_W^2)\mu_Z))$$

$$= N(0 + 0(0 + (\sigma_W^2 + 0)0)) = 0,$$

$$d_{4,15} = d_{9,11} = d_{11,9} = d_{15,4} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}W_{ijkl}^2Z_{ijkl} = nghfE[X_{ijkl}W_{ijkl}^2Z_{ijkl}]$$

$$= N(cov(X_{ijkl}, W_{ijkl}^2Z_{ijkl}) + E[X_{ijkl}]E[W_{ijkl}^2Z_{ijkl}])$$

$$= N(0 + \mu_X(cov(W_{ijkl}^2, Z_{ijkl}) + E[W_{ijkl}^2]E[Z_{ijkl}]))$$

$$= N(0 + \mu_X(0 + (\sigma_W^2 + \mu_W^2)\mu_Z))$$

$$= N(0 + 0(0 + (\sigma_W^2 + 0)0)) = 0,$$

$$d_{4,16} = d_{7,15} = d_{11,12} = d_{12,11} = d_{15,7} = d_{16,4} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}W_{ijkl}^2Z_{ijkl}$$

$$= nghfE[A_{ijkl}X_{ijkl}W_{ijkl}^2Z_{ijkl}] = N(cov(A_{ijkl}X_{ijkl}, W_{ijkl}^2Z_{ijkl})$$

$$+ E[A_{ijkl}X_{ijkl}]E[W_{ijkl}^2Z_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}, X_{ijkl}) + E[A_{ijkl}]E[A_{ijkl}])(cov(W_{ijkl}^2, Z_{ijkl})$$

$$+ E[W_{ijkl}^2]E[Z_{ijkl}]))$$

$$= N(0 + \mu_A\mu_X(0 + (\sigma_W^2 + \mu_W^2)\mu_Z))$$

$$= N(0 + (0)(0)(0 + (\sigma_W^2 + 0)0)) = 0,$$

$$d_{5,5} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} Z_{ijkl}^2 = nghfE[Z_{ijkl}^2] = N(\sigma_Z^2 + \mu_Z^2) = N(\sigma_Z^2 + 0) = N\sigma_Z^2$$

$$d_{5,6} = d_{6,5} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}Z_{ijkl}^2 = nghfE[A_{ijkl}Z_{ijkl}^2]$$

$$= N(cov(A_{ijkl}, Z_{ijkl}^2) + E[A_{ijkl}]E[Z_{ijkl}^2)$$

$$= N(0 + \mu_A(sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + 0(\sigma_Z^2 + 0)) = 0,$$

$$d_{5,10} = d_{10,5} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}Z_{ijkl}^2 = nghfE[X_{ijkl}Z_{ijkl}^2]$$

$$= N(cov(X_{ijkl}, Z_{ijkl}^2) + E[X_{ijkl}]E[Z_{ijkl}^2)$$

$$= N(0 + \mu_X(sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + 0(\sigma_Z^2 + 0)) = 0,$$

$$d_{5,11} = d_{11,5} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} W_{ijkl}Z_{ijkl}^2 = nghfE[W_{ijkl}Z_{ijkl}^2]$$

$$= N(cov(W_{ijkl}, Z_{ijkl}^2) + E[W_{ijkl}]E[Z_{ijkl}^2)$$

$$= N(0 + \mu_W(sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + 0(\sigma_Z^2 + 0)) = 0,$$

$$d_{5,13} = d_{8,10} = d_{10,8} = d_{13,5} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}Z_{ijkl}^2$$

$$= nghfE[A_{ijkl}X_{ijkl}Z_{ijkl}^2]$$

$$= N(cov(A_{ijkl}X_{ijkl}, Z_{ijkl}^2) + E[A_{ijkl}X_{ijkl}]E[Z_{ijkl}^2)$$

$$= N(0 + (cov(A_{ijkl}, X_{ijkl}) + E[A_{ijkl}]E[X_{ijkl}])(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + \mu_A\mu_X)(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + (0)(0))(\sigma_Z^2 + (0))) = 0,$$

$$d_{5,14} = d_{8,11} = d_{11,8} = d_{14,5} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}W_{ijkl}Z_{ijkl}^2$$

$$= nghfE[A_{ijkl}W_{ijkl}Z_{ijkl}^2]$$

$$= N(cov(A_{ijkl}W_{ijkl}, Z_{ijkl}^2) + E[A_{ijkl}W_{ijkl}]E[Z_{ijkl}^2)$$

$$= N(0 + (cov(A_{ijkl}, W_{ijkl}) + E[A_{ijkl}]E[W_{ijkl}])(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + \mu_A\mu_W)(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + (0)(0))(\sigma_Z^2 + (0))) = 0,$$

$$d_{5,15} = d_{10,11} = d_{11,10} = d_{15,5} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}W_{ijkl}Z_{ijkl}^2$$

$$= nghfE[X_{ijkl}W_{ijkl}Z_{ijkl}^2]$$

$$= N(cov(X_{ijkl}W_{ijkl}, Z_{ijkl}^2) + E[X_{ijkl}, W_{ijkl}]E[Z_{ijkl}^2)$$

$$= N(0 + (cov(X_{ijkl}, W_{ijkl}) + E[X_{ijkl}]E[W_{ijkl}])(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + \mu_X\mu_W)(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + (0)(0))(\sigma_Z^2 + (0))) = 0,$$

$$d_{5,16} = d_{8,15} = d_{10,14} = d_{11,13} = d_{13,11} = d_{14,10} = d_{15,8}$$

$$= d_{16,5} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl}^2$$

$$= nghfE[A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl}^2]$$

$$= N(cov(A_{ijkl}X_{ijkl}, W_{ijkl}Z_{ijkl}^2) + E[A_{ijkl}X_{ijkl}]E[W_{ijkl}Z_{ijkl}^2])$$

$$= N(0 + (cov(A_{ijkl}, X_{ijkl}) + E[A_{ijkl}]E[X_{ijkl}])(cov(W_{ijkl}, Z_{ijkl}^2) + E[W_{ijkl}]E[Z_{ijkl}^2]))$$

$$= N(0 + (0 + \mu_A\mu_X)(0 + \mu_W(\sigma_Z^2 + \mu_Z^2)))$$

$$= N(0 + (0 + (0)(0))(0 + 0(\sigma_Z^2 + 0))) = 0,$$

$$d_{6,6} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}(A_{ijkl}X_{ijkl})^2 = nghfE[A_{ijkl}^2X_{ijkl}^2]$$

$$= N(cov(A_{ijkl}^2, X_{ijkl}^2) + E[A_{ijkl}^2]E[X_{ijkl}^2] = N(\sigma_A^2 + \mu_A^2)(\sigma_X^2 + \mu_X^2)$$

$$= N(\sigma_A^2 + 0)(\sigma_X^2 + 0) = N\sigma_A^2\sigma_X^2,$$

$$d_{6,12} = d_{12,6} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2X_{ijkl}^2W_{ijkl} = nghfE[A_{ijkl}^2X_{ijkl}^2W_{ijkl}]$$

$$= N(cov(A_{ijkl}^2X_{ijkl}^2, W_{ijkl}) + E[A_{ijkl}^2X_{ijkl}^2]E[W_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}^2, X_{ijkl}^2) + E[A_{ijkl}^2]E[X_{ijkl}^2])\mu_W)$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)(\sigma_X^2 + \mu_X^2))\mu_W)$$

$$= N(0 + (0 + (\sigma_A^2 + 0)(\sigma_X^2 + 0))0) = 0,$$

$$d_{6,13} = d_{13,6} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 X_{ijkl}^2 Z_{ijkl} = nghfE[A_{ijkl}^2 X_{ijkl}^2 Z_{ijkl}]$$

$$= N(cov(A_{ijkl}^2 X_{ijkl}^2, Z_{ijkl}) + E[A_{ijkl}^2 X_{ijkl}^2]E[Z_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}^2, X_{ijkl}^2) + E[A_{ijkl}^2]E[X_{ijkl}^2])\mu_Z)$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)(\sigma_X^2 + \mu_X^2))\mu_Z)$$

$$= N(0 + (0 + (\sigma_A^2 + 0)(\sigma_X^2 + 0))0) = 0,$$

$$d_{6,16} = d_{12,13} = d_{13,12} = d_{16,6} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 X_{ijkl}^2 W_{ijkl} Z_{ijkl}$$

$$= nghfE[A_{ijkl}^2 X_{ijkl}^2 W_{ijkl} Z_{ijkl}]$$

$$= N(cov(A_{ijkl}^2 X_{ijkl}^2, W_{ijkl} Z_{ijkl}) + E[A_{ijkl}^2 X_{ijkl}^2]E[W_{ijkl} Z_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}^2, X_{ijkl}^2) + E[A_{ijkl}^2]E[X_{ijkl}^2])(cov(W_{ijkl}, Z_{ijkl}) + E[W_{ijkl}]E[Z_{ijkl}])$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)(\sigma_X^2 + \mu_X^2))(\sigma_W^2 + \mu_W^2)(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + (\sigma_A^2 + 0)(\sigma_X^2 + 0))(\sigma_W^2 + 0)(\sigma_Z^2 + 0)) = 0,$$

$$d_{7,7} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} (A_{ijkl} W_{ijkl})^2 = nghfE[(A_{ijkl} W_{ijkl})^2]$$

$$= N(cov(A_{ijkl}^2, W_{ijkl}^2) + E[A_{ijkl}^2]E[W_{ijkl}^2])$$

$$= N(0 + (\sigma_A^2 + \mu_A^2)(\sigma_W^2 + \mu_W^2)) = N\sigma_A^2\sigma_W^2,$$

$$d_{7,12} = d_{12,7} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 X_{ijkl} W_{ijkl}^2 = nghfE[A_{ijkl}^2 X_{ijkl} W_{ijkl}^2]$$

$$= N(cov(A_{ijkl}^2 X_{ijkl}, W_{ijkl}^2) + E[A_{ijkl}^2 X_{ijkl}]E[W_{ijkl}^2])$$

$$= N(0 + (cov(A_{ijkl}^2, X_{ijkl}) + E[A_{ijkl}^2]E[X_{ijkl}])(\sigma_W^2 + \mu_W^2))$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)(\mu_X))(\sigma_W^2 + \mu_W^2))$$

$$= N(0 + (0 + (\sigma_A^2 + 0)(0))(\sigma_W^2 + 0)) = 0,$$

$$d_{7,14} = d_{14,7} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 W_{ijkl}^2 Z_{ijkl} = nghfE[A_{ijkl}^2 W_{ijkl}^2 Z_{ijkl}]$$

$$= N(cov(A^2_{ijkl}X_{ijkl}, W^2_{ijkl}Z_{ijkl}) + E[A^2_{ijkl}X_{ijkl}]E[W^2_{ijkl}Z_{ijkl}])$$

$$= N(0 + (cov(A^2_{ijkl}, X_{ijkl}) + E[A^2_{ijkl}]E[X_{ijkl}])(cov(W^2_{ijkl}, Z_{ijkl}) + E[W^2_{ijkl}]E[Z_{ijkl}])$$

$$= N(0 + (0 + (\sigma^2_A + \mu^2_A)(\mu_X))(0 + (\sigma^2_W + \mu^2_W)\mu_Z))$$

$$= N(0 + (0 + (\sigma^2_A + 0)(0))(0 + (\sigma^2_W + 0)0)) = 0,$$

$$d_{7,16} = d_{12,14} = d_{14,12} = d_{16,7} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A^2_{ijkl}X_{ijkl}W^2_{ijkl}Z_{ijkl}$$

$$= nghfE[A^2_{ijkl}X_{ijkl}W^2_{ijkl}Z_{ijkl}]$$

$$= N(cov(A^2_{ijkl}X_{ijkl}, W^2_{ijkl}Z_{ijkl}) + E[A^2_{ijkl}X_{ijkl}]E[W^2_{ijkl}Z_{ijkl}])$$

$$= N(0 + (cov(A^2_{ijkl}, X_{ijkl}) + E[A^2_{ijkl}]E[X_{ijkl}])(cov(W^2_{ijkl}, Z_{ijkl}) + E[W^2_{ijkl}]E[Z_{ijkl}])$$

$$= N(0 + (0 + (\sigma^2_A + \mu^2_A)(\mu_X))(0 + (\sigma^2_W + \mu^2_W)\mu_Z))$$

$$= N(0 + (0 + (\sigma^2_A + 0)(0))(0 + (\sigma^2_W + 0)0)) = 0,$$

$$d_{8,8} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}(A_{ijkl}Z_{ijkl})^2 = nghfE[(A_{ijkl}Z_{ijkl})^2] = NE[A^2_{ijkl}Z^2_{ijkl}]$$

$$= N(cov(A^2_{ijkl}, Z^2_{ijkl}) + E[A^2_{ijkl}]E[Z^2_{ijkl}])$$

$$= N(0 + (\sigma^2_A + \mu^2_A)(\sigma^2_Z + \mu^2_Z))$$

$$= N(0 + (\sigma^2_A + 0)(\sigma^2_Z + 0)) = N\sigma^2_A\sigma^2_Z,$$

$$d_{8,13} = d_{13,8} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A^2_{ijkl}X_{ijkl}Z^2_{ijkl}$$

$$= nghfE[A^2_{ijkl}X_{ijkl}Z^2_{ijkl}]$$

$$= N(cov(A^2_{ijkl}, Z^2_{ijkl}) + E[A^2_{ijkl}]E[Z^2_{ijkl}])$$

$$= N(0 + (\sigma^2_A + \mu^2_A)(\sigma^2_Z + \mu^2_Z))$$

$$= N(0 + (\sigma^2_A + 0)(\sigma^2_Z + 0)) = N\sigma^2_A\sigma^2_Z,$$

$$d_{8,14} = d_{14,8} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A^2_{ijkl}W_{ijkl}Z^2_{ijkl} = nghfE[A^2_{ijkl}W_{ijkl}Z^2_{ijkl}]$$

$$= N(cov(A^2_{ijkl}, W_{ijkl}, Z^2_{ijkl}) + E[A^2_{ijkl}W_{ijkl}]E[Z^2_{ijkl}])$$

$$= N(0 + (cov(A^2_{ijkl}W_{ijkl}) + E[A^2_{ijkl}]E[W_{ijkl}])E[Z^2_{ijkl}])$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)\mu_W)(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + (\sigma_A^2 + 0)0)(\sigma_Z^2 + 0)) = 0,$$

$$d_{8,16} = d_{13,14} = d_{14,13} = d_{16,8} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2 X_{ijkl} W_{ijkl} Z_{ijkl}^2$$

$$= nghfE[A_{ijkl}^2 X_{ijkl} W_{ijkl} Z_{ijkl}^2]$$

$$= N(cov(A_{ijkl}^2 X_{ijkl}, W_{ijkl} Z_{ijkl}^2) + E[A_{ijkl}^2 X_{ijkl}]E[W_{ijkl} Z_{ijkl}^2])$$

$$= N(0 + (cov(A_{ijkl}^2, X_{ijkl}) + E[A_{ijkl}^2]E[X_{ijkl}])(cov(W_{ijkl}, Z_{ijkl}^2) + E[W_{ijkl}])E[Z_{ijkl}^2]))$$

$$= N(0 + (0 + E[A_{ijkl}^2]E[X_{ijkl}])(cov(W_{ijkl}, Z_{ijkl}^2) + E[W_{ijkl}])E[Z_{ijkl}^2]))$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)\mu_X)(0 + \mu_W(\sigma_Z^2 + \mu_Z^2)))$$

$$= N(0 + (0 + (\sigma_A^2 + 0)0)(0 + 0(\sigma_Z^2 + 0))) = 0,$$

$$d_{9,9} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} (X_{ijkl} W_{ijkl})^2 = nghfE[(X_{ijkl} W_{ijkl})^2] = NE[X_{ijkl}^2 W_{ijkl}^2]$$

$$= N(cov(X_{ijkl}^2, W_{ijkl}^2) + E[X_{ijkl}^2]E[W_{ijkl}^2])$$

$$= N(0 + (\sigma_X^2 + \mu_X^2)(\sigma_W^2 + \mu_W^2)$$

$$= N(0 + (\sigma_X^2 + 0)(\sigma_W^2 + 0) = N\sigma_X^2\sigma_W^2,$$

$$d_{9,12} = d_{12,9} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl} X_{ijkl}^2 W_{ijkl}^2 = nghfE[A_{ijkl} X_{ijkl}^2 W_{ijkl}^2]$$

$$= N(cov(A_{ijkl} X_{ijkl}^2, W_{ijkl}^2) + E[A_{ijkl} X_{ijkl}^2]E[W_{ijkl}^2])$$

$$= N(0 + (cov(A_{ijkl}, X_{ijkl}^2) + E[A_{ijkl}]E[X_{ijkl}^2])(\sigma_W^2 + \mu_W^2))$$

$$= N(0 + (0 + \mu_A(\sigma_X^2 + \mu_X))(\sigma_W^2 + \mu_W^2))$$

$$= N(0 + (0 + 0(\sigma_X^2 + 0))(\sigma_W^2 + 0)) = 0,$$

$$d_{9,14} = d_{14,9} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl} X_{ijkl} W_{ijkl}^2 Z_{ijkl} = nghfE[A_{ijkl} X_{ijkl} W_{ijkl}^2 Z_{ijkl}]$$

$$= N(cov(A_{ijkl} X_{ijkl}, W_{ijkl}^2 Z_{ijkl}) + E[A_{ijkl} X_{ijkl}]E[W_{ijkl}^2 Z_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}, X_{ijkl}) + E[A_{ijkl}]E[X_{ijkl}])(cov(W_{ijkl}^2, Z_{ijkl}) + E[W_{ijkl}^2]E[Z_{ijkl}]))$$

$$= N(0 + (0 + \mu_A\mu_X)(0 + (\sigma_W^2 + \mu_W^2)\mu_Z))$$

$$= N(0 + (0 + (0)(0))(0 + (\sigma_W^2 + 0)0)) = 0,$$

$$d_{9,15} = d_{15,9} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}^2 W_{ijkl}^2 Z_{ijkl} = nghfE[X_{ijkl}^2 W_{ijkl}^2 Z_{ijkl}]$$

$$= N(cov(X_{ijkl}^2, W_{ijkl}^2 Z_{ijkl}) + E[X_{ijkl}^2]E[W_{ijkl}^2 Z_{ijkl}])$$

$$= N(0 + (\sigma_X^2 + \mu_X^2)(cov(W_{ijkl}^2, Z_{ijkl}) + E[W_{ijkl}^2]E[Z_{ijkl}])$$

$$= N(0 + (\sigma_X^2 + \mu_X^2)(0 + (\sigma_W^2 + \mu_W^2)\mu_Z)$$

$$= N(0 + (\sigma_X^2 + 0)(0 + (\sigma_W^2 + 0)0) = 0,$$

$$d_{9,16} = d_{12,15} = d_{15,12} = d_{16,9} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl} X_{ijkl}^2 W_{ijkl}^2 Z_{ijkl}$$

$$= nghfE[A_{ijkl} X_{ijkl}^2 W_{ijkl}^2 Z_{ijkl}]$$

$$= N(cov(A_{ijkl} X_{ijkl}^2, W_{ijkl}^2 Z_{ijkl}) + E[A_{ijkl} X_{ijkl}^2]E[W_{ijkl}^2 Z_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}, X_{ijkl}^2) + E[A_{ijkl}]E[X_{ijkl}^2])(cov(W_{ijkl}^2, Z_{ijkl}) + E[W_{ijkl}^2]E[Z_{ijkl}])$$

$$= N(0 + (0 + \mu_A(\sigma_X^2 + \mu_X^2))(0 + (\sigma_W^2 + \mu_W^2)\mu_Z)$$

$$= N(0 + (0 + 0(\sigma_X^2 + 0))(0 + (\sigma_W^2 + 0)0) \ = 0,$$

$$d_{10,10} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} (X_{ijkl} Z_{ijkl})^2 = nghfE[(X_{ijkl} Z_{ijkl})^2]$$

$$= NE[X_{ijkl}^2 Z_{ijkl}^2]$$

$$= N(cov(X_{ijkl}^2, Z_{ijkl}^2) + E[X_{ijkl}^2]E[Z_{ijkl}^2])$$

$$= N(0 + (\sigma_X^2 + \mu_X^2)(\sigma_Z^2 + \mu_Z^2)$$

$$= N(0 + (\sigma_X^2 + 0)(\sigma_Z^2 + 0) = N\sigma_X^2\sigma_Z^2,$$

$$d_{10,11} = d_{11,10} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl} X_{ijkl}^2 Z_{ijkl}^2 = nghfE[A_{ijkl} X_{ijkl}^2 Z_{ijkl}^2]$$

$$= N(cov(A_{ijkl} X_{ijkl}^2, Z_{ijkl}^2) + E[A_{ijkl} X_{ijkl}^2]E[Z_{ijkl}^2])$$

$$= N(0 + (cov(A_{ijkl}, X_{ijkl}^2) + E[A_{ijkl}]E[X_{ijkl}^2])(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + \mu_A(\sigma_X^2 + \mu_X^2))(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + 0(\sigma_X^2 + 0))(\sigma_Z^2 + 0)) = 0,$$

$$d_{10,15} = d_{15,10} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl}^2 W_{ijkl} Z_{ijkl}^2 = nghfE[X_{ijkl}^2 W_{ijkl} Z_{ijkl}^2]$$

$$= N(cov(X_{ijkl}^2 W_{ijkl}, Z_{ijkl}^2) + E[X_{ijkl}^2 W_{ijkl}]E[Z_{ijkl}^2])$$

$$= N(0 + (cov(X_{ijkl}^2, W_{ijkl}) + E[X_{ijkl}^2]E[W_{ijkl}])(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + (\sigma_X^2 + \mu_X^2)\mu_W)(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + (\sigma_X^2 + 0)0)(\sigma_Z^2 + 0)) = 0,$$

$$d_{10,16} = d_{13,15} = d_{15,13} = d_{16,10} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl} X_{ijkl}^2 W_{ijkl} Z_{ijkl}^2$$

$$= nghfE[A_{ijkl} X_{ijkl}^2 W_{ijkl} Z_{ijkl}^2]$$

$$= N(cov(A_{ijkl} X_{ijkl}^2, W_{ijkl} Z_{ijkl}^2) + E[A_{ijkl} X_{ijkl}^2]E[W_{ijkl} Z_{ijkl}^2])$$

$$= N(0 + (cov(A_{ijkl}, X_{ijkl}^2) + E[A_{ijkl}]E[X_{ijkl}^2])(cov(W_{ijkl}, Z_{ijkl}^2) + E[W_{ijkl}]E[Z_{ijkl}^2]))$$

$$= N(0 + (0 + \mu_A(\sigma_X^2 + \mu_X))(0 + \mu_W(\sigma_Z^2 + \mu_Z)))$$

$$= N(0 + (0 + 0(\sigma_X^2 + 0))(0 + 0(\sigma_Z^2 + 0))) = 0,$$

$$d_{11,11} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} (W_{ijkl} Z_{ijkl})^2 = nghfE[(W_{ijkl} Z_{ijkl})^2]$$

$$= NE[W_{ijkl}^2 Z_{ijkl}^2]$$

$$= N(cov(W_{ijkl}^2, Z_{ijkl}^2) + E[W_{ijkl}^2]E[Z_{ijkl}^2])$$

$$= N(0 + (\sigma_W^2 + \mu_W^2)(\sigma_Z^2 + \mu_Z^2)$$

$$= N(0 + (\sigma_W^2 + 0)(\sigma_Z^2 + 0) = N\sigma_W^2\sigma_Z^2,$$

$$d_{11,14} = d_{14,11} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl} W_{ijkl} Z_{ijkl}^2 = nghfE[A_{ijkl} W_{ijkl} Z_{ijkl}^2]$$

$$= \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} E[A_{ijkl}]E[W_{ijkl}]E[Z_{ijkl}^2] = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} \mu_A\mu_W(\sigma_Z^2 + \mu_Z^2)$$

$$= nghf\mu_A\mu_W(\sigma_Z^2 + \mu_Z^2) = N(0)(0)(\sigma_Z^2 + 0) = 0,$$

$$d_{11,15} = d_{15,11} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} X_{ijkl} W_{ijkl}^2 Z_{ijkl}^2 = nghfE[X_{ijkl} W_{ijkl}^2 Z_{ijkl}^2]$$

$$= N(cov(X_{ijkl} W_{ijkl}^2, Z_{ijkl}^2) + E[X_{ijkl} W_{ijkl}^2]E[Z_{ijkl}^2]))$$

$$= N(0 + (cov(X_{ijkl}, W_{ijkl}^2) + E[X_{ijkl}]E[W_{ijkl}^2])(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + \mu_X(\sigma_W^2 + \mu_W^2))(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + 0(\sigma_W^2 + 0))(\sigma_Z^2 + 0)) = 0,$$

$$d_{11,16} = d_{14,15} = d_{15,14} = d_{16,11} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}W_{ijkl}^2Z_{ijkl}^2$$

$$= nghfE[A_{ijkl}X_{ijkl}W_{ijkl}^2Z_{ijkl}^2]$$

$$= N(cov(A_{ijkl}X_{ijkl}, W_{ijkl}^2Z_{ijkl}^2) + E[A_{ijkl}X_{ijkl}]E[W_{ijkl}^2Z_{ijkl}^2])$$

$$= N(cov(A_{ijkl}X_{ijkl}, W_{ijkl}^2Z_{ijkl}^2) + E[A_{ijkl}X_{ijkl}]E[W_{ijkl}^2Z_{ijkl}^2]))$$

$$= N(0 + (cov(A_{ijkl}, X_{ijkl}) + E[A_{ijkl}]E[X_{ijkl}])(cov(W_{ijkl}^2, Z_{ijkl}^2) + E[W_{ijkl}^2]E[Z_{ijkl}^2])$$

$$= N(0 + (0 + \mu_A\mu_X)(0 + (\sigma_W^2 + \mu_W^2)(\sigma_Z^2 + \mu_Z^2)))$$

$$= N(0 + (0 + (0)(0))(0 + (\sigma_W^2 + 0)(\sigma_Z^2 + 0))) = 0,$$

$$d_{12,12} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}(A_{ijkl}X_{ijkl}W_{ijkl})^2 = nghfE[(A_{ijkl}X_{ijkl}W_{ijkl})^2]$$

$$= NE[A_{ijkl}^2X_{ijkl}^2W_{ijkl}^2]$$

$$= N(cov(A_{ijkl}^2X_{ijkl}^2, W_{ijkl}^2) + E[A_{ijkl}^2X_{ijkl}^2]E[W_{ijkl}^2])$$

$$= N(0 + (cov(A_{ijkl}^2, X_{ijkl}^2) + E[A_{ijkl}^2]E[X_{ijkl}^2])(\sigma_W^2 + \mu_W^2)$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)(\sigma_X^2 + \mu_X^2)(\sigma_W^2 + \mu_W^2))$$

$$= N(0 + (0 + (\sigma_A^2 + 0)(\sigma_X^2 + 0)(\sigma_W^2 + 0))$$

$$= N\sigma_A^2\sigma_X^2\sigma_W^2,$$

$$d_{12,16} = d_{16,12} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}^2X_{ijkl}^2W_{ijkl}^2Z_{ijkl} = nghfE[A_{ijkl}^2X_{ijkl}^2W_{ijkl}^2Z_{ijkl}]$$

$$= N(cov(A_{ijkl}^2X_{ijkl}^2, W_{ijkl}^2Z_{ijkl}) + E[A_{ijkl}^2X_{ijkl}^2]E[W_{ijkl}^2Z_{ijkl}])$$

$$= N(0 + (cov(A_{ijkl}^2, X_{ijkl}^2) + E[A_{ijkl}^2]E[X_{ijkl}^2])(cov(W_{ijkl}^2, Z_{ijkl}) + E[W_{ijkl}^2]E[Z_{ijkl}]))$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)(\sigma_X^2 + \mu_X^2))(0 + (\sigma_W^2 + \mu_W^2)\mu_Z))$$

$$= N(0 + (0 + (\sigma_A^2 + 0)(\sigma_X^2 + 0))(0 + (\sigma_W^2 + 0)0)) = 0,$$

$$d_{13,13} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}(A_{ijkl}X_{ijkl}Z_{ijkl})^2 = nghfE[(A_{ijkl}X_{ijkl}Z_{ijkl})^2]$$

$$= NE[A_{ijkl}^2X_{ijkl}^2Z_{ijkl}^2]$$

$$= N(cov(A_{ijkl}^2X_{ijkl}^2, Z_{ijkl}^2) + E[A_{ijkl}^2X_{ijkl}^2]E[Z_{ijkl}^2])$$

$$= N(0 + (cov(A_{ijkl}^2, X_{ijkl}^2) + E[A_{ijkl}^2]E[X_{ijkl}^2])(\sigma_Z^2 + \mu_Z^2)$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)(\sigma_X^2 + \mu_X^2)(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + (\sigma_A^2 + 0)(\sigma_X^2 + 0)(\sigma_Z^2 + 0))$$

$$= N\sigma_A^2\sigma_X^2\sigma_Z^2,$$

$$d_{13,16} = d_{16,13} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}A_{ijkl}^2X_{ijkl}^2W_{ijkl}Z_{ijkl}^2 = nghfE[A_{ijkl}^2X_{ijkl}^2W_{ijkl}Z_{ijkl}^2]$$

$$= N(cov(A_{ijkl}^2X_{ijkl}^2, W_{ijkl}Z_{ijkl}) + E[A_{ijkl}^2X_{ijkl}^2]E[W_{ijkl}Z_{ijkl}^2])$$

$$= N(0 + (cov(A_{ijkl}^2, X_{ijkl}^2) + E[A_{ijkl}^2]E[X_{ijkl}^2])(cov(W_{ijkl}, Z_{ijkl}) + E[W_{ijkl}]E[Z_{ijkl}^2]))$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)(\sigma_X^2 + \mu_X^2))(0 + (\mu_W)(\sigma_Z^2 + \mu_Z^2)))$$

$$= N(0 + (0 + (\sigma_A^2 + 0)(\sigma_X^2 + 0))(0 + (0)(\sigma_Z^2 + 0))) = 0,$$

$$d_{14,14} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}(A_{ijkl}W_{ijkl}Z_{ijkl})^2 = nghfE[(A_{ijkl}W_{ijkl}Z_{ijkl})^2]$$

$$= NE[A_{ijkl}^2W_{ijkl}^2Z_{ijkl}^2]$$

$$= N(cov(A_{ijkl}^2W_{ijkl}^2, Z_{ijkl}^2) + E[A_{ijkl}^2W_{ijkl}^2]E[Z_{ijkl}^2])$$

$$= N(0 + (cov(A_{ijkl}^2, W_{ijkl}^2) + E[A_{ijkl}^2]E[W_{ijkl}^2])(\sigma_Z^2 + \mu_Z^2)$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)(\sigma_W^2 + \mu_W^2)(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + (\sigma_A^2 + 0)(\sigma_W^2 + 0)(\sigma_Z^2 + 0))$$

$$= N\sigma_A^2\sigma_W^2\sigma_Z^2,$$

$$d_{14,16} = d_{16,14} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}A_{ijkl}^2X_{ijkl}W_{ijkl}^2Z_{ijkl}^2 = nghfE[A_{ijkl}^2X_{ijkl}W_{ijkl}^2Z_{ijkl}^2]$$

$$= N(cov(A_{ijkl}^2X_{ijkl}, W_{ijkl}^2Z_{ijkl}^2) + E[A_{ijkl}^2X_{ijkl}]E[W_{ijkl}^2Z_{ijkl}^2])$$

$$= N(0 + (cov(A_{ijkl}^2, X_{ijkl}) + E[A_{ijkl}^2]E[X_{ijkl}])(cov(W_{ijkl}^2, Z_{ijkl}^2) + E[W_{ijkl}^2]E[Z_{ijkl}^2])$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)(\mu_X))(0 + (\sigma_W^2 + \mu_W^2)(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + (\sigma_A^2 + 0)(0))(0 + (\sigma_W^2 + 0)(\sigma_Z^2 + 0)) = 0,$$

$$d_{15,15} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}(X_{ijkl}W_{ijkl}Z_{ijkl})^2 = nghfE[(X_{ijkl}W_{ijkl}Z_{ijkl})^2]$$

$$= NE[X_{ijkl}^2 W_{ijkl}^2 Z_{ijkl}^2]$$

$$= N(cov(X_{ijkl}^2 W_{ijkl}^2, Z_{ijkl}^2) + E[X_{ijkl}^2 W_{ijkl}^2]E[Z_{ijkl}^2])$$

$$= N(0 + (cov(X_{ijkl}^2, W_{ijkl}^2) + E[X_{ijkl}^2]E[W_{ijkl}^2])(\sigma_Z^2 + \mu_Z^2)$$

$$= N(0 + (0 + (\sigma_X^2 + \mu_X^2)(\sigma_W^2 + \mu_W^2)(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + (\sigma_X^2 + 0)(\sigma_W^2 + 0)(\sigma_Z^2 + 0))$$

$$= N\sigma_X^2\sigma_W^2\sigma_Z^2,$$

$$d_{15,16} = d_{16,15} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n} A_{ijkl}X_{ijkl}^2 W_{ijkl}^2 Z_{ijkl}^2 = nghfE[A_{ijkl}X_{ijkl}^2 W_{ijkl}^2 Z_{ijkl}^2]$$

$$= N(cov(A_{ijkl}X_{ijkl}^2, W_{ijkl}^2 Z_{ijkl}^2) + E[A_{ijkl}X_{ijkl}^2]E[W_{ijkl}^2 Z_{ijkl}^2])$$

$$= N(0 + (cov(A_{ijkl}, X_{ijkl}^2) + E[A_{ijkl}]E[X_{ijkl}^2])(cov(W_{ijkl}^2, Z_{ijkl}^2) + E[W_{ijkl}^2]E[Z_{ijkl}^2])$$

$$= N(0 + (0 + (\mu_A)(\sigma_X^2 + \mu_X^2))(0 + (\sigma_W^2 + \mu_W^2)(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + (0)(\sigma_X^2 + 0))(0 + (\sigma_W^2 + 0)(\sigma_Z^2 + 0)) = 0,$$

$$d_{16,16} = \sum_{l=1}^{f}\sum_{k=1}^{h}\sum_{j=1}^{g}\sum_{i=1}^{n}(A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl})^2 = nghfE[(A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl})^2]$$

$$= NE[A_{ijkl}^2 X_{ijkl}^2 W_{ijkl}^2 Z_{ijkl}^2]$$

$$= N(cov(A_{ijkl}^2 X_{ijkl}^2, W_{ijkl}^2 Z_{ijkl}^2) + E[A_{ijkl}^2 X_{ijkl}^2]E[W_{ijkl}^2 Z_{ijkl}^2])$$

$$= N(0 + (cov(A_{ijkl}^2, X_{ijkl}^2) + E[A_{ijkl}^2]E[X_{ijkl}^2])(cov(W_{ijkl}^2, Z_{ijkl}^2) + E[W_{ijkl}^2]E[Z_{ijkl}^2])$$

$$= N(0 + (0 + (\sigma_A^2 + \mu_A^2)(\sigma_X^2 + \mu_X^2))(0 + (\sigma_W^2 + \mu_W^2)(\sigma_Z^2 + \mu_Z^2))$$

$$= N(0 + (0 + (\sigma_A^2 + 0)(\sigma_X^2 + 0))(0 + (\sigma_W^2 + 0)(\sigma_Z^2 + 0))$$

$$= N\sigma_A^2\sigma_X^2\sigma_W^2\sigma_Z^2.$$

Hence by substitution, this implies

$$\mathbf{D}_{Level-4} = \begin{bmatrix} N & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & N\sigma_A^2 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & N\sigma_X^2 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \ddots & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \ddots & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & N\sigma_A^2\sigma_W^2\sigma_Z^2 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & N\sigma_X^2\sigma_W^2\sigma_Z^2 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & N\sigma_A^2\sigma_X^2\sigma_W^2\sigma_Z^2 \end{bmatrix}.$$

The inverse of the diagonal matrix $\mathbf{D}_{Level-4}$ is denoted $\mathbf{D}_{Level-4}^{-1}$ and equivalent to

$$\mathbf{D}_{Level-4}^{-1} = \begin{bmatrix} \frac{1}{N} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{1}{N\sigma_A^2} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{1}{N\sigma_X^2} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \ddots & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \ddots & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{1}{N\sigma_A^2\sigma_W^2\sigma_Z^2} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{N\sigma_X^2\sigma_W^2\sigma_Z^2} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{1}{N\sigma_A^2\sigma_X^2\sigma_W^2\sigma_Z^2} \end{bmatrix}.$$

By Appendix A, $Var(\hat{\delta}) = \sigma^2_{Level-4}\mathbf{I}_{N\times N}\mathbf{D}^{-1}_{Level-4}$. Therefore,

$$Var(\delta) = \begin{bmatrix} \frac{\sigma^2_{Level-4}}{N} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \frac{\sigma^2_{Level-4}}{N\sigma^2_A} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \frac{\sigma^2_{Level-4}}{N\sigma^2_X} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \ddots & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \ddots & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{\sigma^2_{Level-4}}{N\sigma^2_A\sigma^2_W\sigma^2_Z} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sigma^2_{Level-4}}{N\sigma^2_X\sigma^2_W\sigma^2_Z} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \frac{\sigma^2_{Level-4}}{N\sigma^2_A\sigma^2_X\sigma^2_W\sigma^2_Z} \end{bmatrix}.$$

Hence, $s.e.(\hat{\delta}) = \sqrt{\sigma^2_{Level-4}I_{NxN}\mathbf{D}^{-1}_{Level-4}}$. Thus,

$$s.e.(\delta) = \begin{bmatrix} \sqrt{\frac{\sigma^2_{Level-4}}{N}} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \sqrt{\frac{\sigma^2_{Level-4}}{N\sigma^2_A}} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \sqrt{\frac{\sigma^2_{Level-4}}{N\sigma^2_X}} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \ddots & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \ddots & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \sqrt{\frac{\sigma^2_{Level-4}}{N\sigma^2_A\sigma^2_W\sigma^2_Z}} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{\frac{\sigma^2_{Level-4}}{N\sigma^2_X\sigma^2_W\sigma^2_Z}} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{\frac{\sigma^2_{Level-4}}{N\sigma^2_A\sigma^2_X\sigma^2_W\sigma^2_Z}} \end{bmatrix}. \quad (30)$$

The derived HLM standard error matrices by Level-2, Level-3, and Level-4 will be used to determine power of the parameters in the Sample Size Estimation for Level-2, Level-3, and Level-4 Section (Section 3.1). For a single independent predictor at each level ($A_{ijkl}$, $X_{ijkl}$, $W_{ijkl}$, and $Z_{ijkl}$) with corresponding distribution $N(0, \sigma^2_A)$, $N(0, \sigma^2_X)$, $N(0, \sigma^2_W)$, and $N(0, \sigma^2_Z)$ respectively, the standard error matrices will estimate an explicit power expression for various: sample sizes at each level, initial error variance values, error

distributions, predictor distributions, and estimated effect sizes.

## 3.1 Sample Size Estimation for Level-2, Level-3, and Level-4

To determine the sample size requirements for a Level-2, Level-3, and Level-4 HLM based on adequate power of 0.80 for parameter estimation, a simulation procedure of various scenarios was conducted. Using the combined Level-2, Level-3 and Level-4 HLM equations found in the previous chapter for all levels considered, samples sizes were rounded up to the next highest integer to assume sufficient power. Further, the use of the word "simulation" here refers to the fixed settings for which power was computed. The formulas derived are exact and can be applied to any multi-level model.

### Level-2 HLM Sample Size Recommendations.

To accomplish Research Objective 1 for the Level-2 HLM, this research used the combined Level-2 HLM measurement model specified in Equation 22 and restated here: $Y_{ij} = \beta_{00} + \beta_{01}X_{ij} + \beta_{10}A_{ij} + \beta_{11}X_{ij}A_{ij} + r_{1j}A_{ij} + r_{0j} + e_{ij}$. Five conditions were considered to determine the sample size requirements to achieve sufficient power for parameter estimation of a Level-2 HLM. The five conditions and the number of levels used in the simulation were:

**1)** the number of individuals and groups at Level-1 and Level-2, respectively, varied between 1 and 100;

**2)** two initial Level-1 error variances ($\sigma_e^2 = 1.0, 2.0$);

**3)** two cases for Level-2 error variance in which either Level-2 equals Level-1 error variance or Level-2 error variance is twice that of Level-1 (Table 2);

**4)** three simulation cases for predictor distribution by level (Table 3); and

**5)** three levels of parameter estimated effect sizes (0.1, 0.3, 0.7).

The error variance assumptions by level were based on realistic operational distributions where the variability of individuals at Level-1 is greater than or equal to the variability of groups at Level-2. These values are shown in Table 2. Unlike previous studies, the error variance levels were chosen instead of ICC values as in previous practice. This is because information about error variance rather than ICC most likely would be known. This research used $e_{ijkl} \sim N(0, \sigma_e^2)$, such that $\sigma_e^2 = 1.0$ at Level-1 as a comparison to previous Level-2 HLM power analysis studies. The error variance assumptions and variance terms were chosen similar to literature such that the corresponding ICC values were moderate as shown in Table 4.

**Table 2. Level-2: initial Level-1 error variance and associated error variance values for each simulation case**

| **Initial Level-1 Value** | **Level** | **Error Variance Assumptions** Simulation Case 1 | 2 | **Error Variance Values** Simulation Case 1 | 2 |
|---|---|---|---|---|---|
| $\sigma_e^2 = 1.0$ | 1 | $2\sigma_e^2$ | $\sigma_e^2$ | 2.0 | 1.0 |
| | 2 | $\sigma_e^2$ | $\sigma_e^2$ | 1.0 | 1.0 |
| $\sigma_e^2 = 2.0$ | 1 | $2\sigma_e^2$ | $\sigma_e^2$ | 4.0 | 2.0 |
| | 2 | $\sigma_e^2$ | $\sigma_e^2$ | 2.0 | 2.0 |

**Table 3. Level-2: Distribution assumptions for predictor assumptions by level**

| **Level** | **Predictor Distribution** | **Predictor Variance Term** | **Variance Values for Simulation Case** 1 | 2 | 3 |
|---|---|---|---|---|---|
| 1 | $A_{ij} \sim N(0, \sigma_A^2)$ | $\sigma_A^2$ | 1.0 | 0.5 | 1.0 |
| 2 | $X_{ij} \sim N(0, \sigma_X^2)$ | $\sigma_X^2$ | 1.0 | 1.0 | 0.5 |

### Level-2 HLM Power Simulation Results.

The power, first generally introduced in Equation 19, of a Level-2 HLM is

$$z_\pi \approx \Phi\left(\frac{\hat{\beta} - \beta}{s.e.(\hat{\beta})} - z_{1-\alpha/2}\right)$$

**Table 4. Level-2: intraclass correlation (ICC) values for the proportion of variance within group-level**

| Simulation Case | Variance Values by Level<br>Level-1 Level-2 | Intraclass Correlation<br>$ICC_1 = \frac{\sigma_r^2}{\sigma_e^2+\sigma_r^2}$ |
|---|---|---|
| 1 | $\sigma_e^2 = 2.0\ \sigma_r^2 = 1.0$ | $ICC_1 = \frac{1}{2+1} = 0.333$ |
| | $\sigma_e^2 = 4.0\ \sigma_r^2 = 2.0$ | $ICC_1 = \frac{2}{4+2} = 0.333$ |
| 2 | $\sigma_e^2 = 1.0\ \sigma_r^2 = 1.0$ | $ICC_1 = \frac{1}{1+1} = 0.5$ |
| | $\sigma_e^2 = 2.0\ \sigma_r^2 = 2.0$ | $ICC_1 = \frac{2}{2+2} = 0.5$ |

such that:

$\pi$ is the minimum power considered equal to 0.80;

$z_\pi$ is $z_{0.80}$ for the minimum power considered. Based on the standard normal table, the z-score is 0.7881;

$\hat{\beta} - \beta$ is the estimated effect size for the assumed values $0.1, 0.3,$ and $0.7$;

$z_{1-\alpha/2}$ is $z_{0.975}$ assuming the Type I error rate, $\alpha$ is equal to 0.05. Based on the standard normal table, the z-score is 1.96;

$s.e.(\hat{\beta})$ are the derived diagonal elements of the $s.e.(\hat{\beta})$ matrix for the parameter vector $[\beta_{00}, \beta_{01}, \beta_{10}, \beta_{11}]$ as given in Equation 19.

For equal and varying sample sizes at Level-1 and Level-2, the power is computed for each sample set of the five conditions outlined in the Level-2 HLM simulation procedure (Table 5 and Figures 11 to 15). Based on the assumed predictor variances, the figures illustrate plot comparisons for Level-2 intercepts ($\beta_{00}$, $\beta_{10}$) and slopes ($\beta_{01}$, $\beta_{11}$) when $\sigma_A^2 = \sigma_X^2 = 1$ (Figure 11), the intercept and slope of the Level-1 intercept parameter equations when $\sigma_A^2 = 0.5$ and $\sigma_X^2 = 1$ (Figure 12), the intercept and slope ($\beta_{10}, \beta_{11}$) of the Level-1 slope parameter equations when $\sigma_A^2 = 0.5$ and $\sigma_X^2 = 1$ (Figure 13), pure intercepts ($\beta_{00}$, $\beta_{10}$) when $\sigma_A^2 = 1.0$ and $\sigma_X^2 = 0.5$ (Figure 14), and slopes of large interactions ($\beta_{01}$, $\beta_{11}$) when $\sigma_A^2 = 0.5$ and $\sigma_X^2 = 1.0$ (Figure 15).

**Table 5. Level-2 HLM sample size suggestions for sufficient power ($\geq 80\%$) based on assumed predictor variances, error variances, and estimated effect sizes.**

| Level-2 Sample Size Suggestions | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Effect Size | | | | | |
| | | | | 0.1 | | 0.3 | | 0.7 | |
| Predictor Variance | | Error Variance | | Sample Size | | | | | |
| Level-1: $A_{ij} \sim N(0, \sigma_A^2)$ $\sigma_A^2$ | Level-2: $X_{1j} \sim N(0, \sigma_X^2)$ $\sigma_X^2$ | Level-1: $e_{ij} \sim N(0, \sigma_e^2)$ $\sigma_e^2$ | Level-2: $r_{1j} \sim N(0, \sigma_r^2)$ $\sigma_r^2$ | $(n, g)$ for $n = g$ | $(n, g)$ for smallest pair | $(n, g)$ for $n = g$ | $(n, g)$ for smallest pair | $(n, g)$ For $n = g$ | $(n, g)$ for smallest pair |
| **Intercepts and Slopes: $\beta_{00}, \beta_{10}, \beta_{01}, \beta_{11}$** | | | | | | | | | |
| 1.0 | 1.0 | 2.0 | 1.0 | 57 | (40,80) | 20 | (15,25) | 10 | (1,90) |
| | | 4.0 | 2.0 | 80 | (80,80) | 27 | (25,29) | 13 | (9,17) |
| | | 1.0 | 1.0 | 49 | (30,80) | 17 | (17,17) | 9 | (3,25) |
| | | 1.0 | 2.0 | 70 | (60,80) | 24 | (11,50) | 11 | (3,40) |
| **Level-1 Intercept Equation: $\beta_{00}, \beta_{01}$** | | | | | | | | | |
| 0.5 | 1.0 | 2.0 | 1.0 | 53 | (35,80) | 18 | (17,19) | 9 | (3,25) |
| | | 4.0 | 2.0 | 75 | (70,80) | 26 | (7,90) | 12 | (7,19) |
| | | 1.0 | 1.0 | 45 | (25,80) | 16 | (3,80) | 8 | (3,19) |
| | | 2.0 | 2.0 | 64 | (40,100) | 22 | (13,35) | 10 | (9,11) |
| **Level-1 Slope Equation: $\beta_{10}, \beta_{11}$** | | | | | | | | | |
| 0.5 | 1.0 | 2.0 | 1.0 | 75 | (70,80) | 26 | (13,50) | 13 | (5,29) |
| | | 4.0 | 2.0 | N/A | N/A | 36 | (21,60) | 17 | (9,29) |
| | | 1.0 | 1.0 | 64 | (40,100) | 22 | (19,25) | 11 | (5,23) |
| | | 2.0 | 2.0 | 90 | (80,100) | 31 | (13,70) | 14 | (13,15) |
| **Pure Intercepts: $\beta_{00}, \beta_{10}$** | | | | | | | | | |
| 1.0 | 0.5 | 2.0 | 1.0 | 57 | (40,80) | 20 | (15,25) | 9 | (1,80) |
| | | 4.0 | 2.0 | 80 | (70,90) | 27 | (13,55) | 13 | (5,29) |
| | | 1.0 | 1.0 | 49 | (30,80) | 17 | (7,40) | 9 | (5,13) |
| | | 2.0 | 2.0 | 70 | (60,80) | 24 | (9,60) | 11 | (5,23) |
| **Large Interactions: $\beta_{01}, \beta_{11}$** | | | | | | | | | |
| 1.0 | 0.5 | 2.0 | 1.0 | 80 | (80,80) | 28 | (21,35) | 9 | (1,80) |
| | | 4.0 | 2.0 | N/A | N/A | 39 | (29,50) | 17 | (17,17) |
| | | 1.0 | 1.0 | 70 | (60,80) | 24 | (7,80) | 12 | (7,19) |
| | | 2.0 | 2.0 | 100 | (100,100) | 33 | (27,40) | 15 | (5,45) |

The specific sample size recommendations to achieve at least 0.80 power for $n = g$ and the smallest sample size pair $(n, g)$ for each predictor and error distribution are outlined in Table 5. The smallest sample size pair refers to the pair in which the smallest value for Level-1 or Level-2 is found that still results in at least 80% power. That is, numbers within the $(n, g)$ set are interchangeable between levels and are conventionally listed smallest to

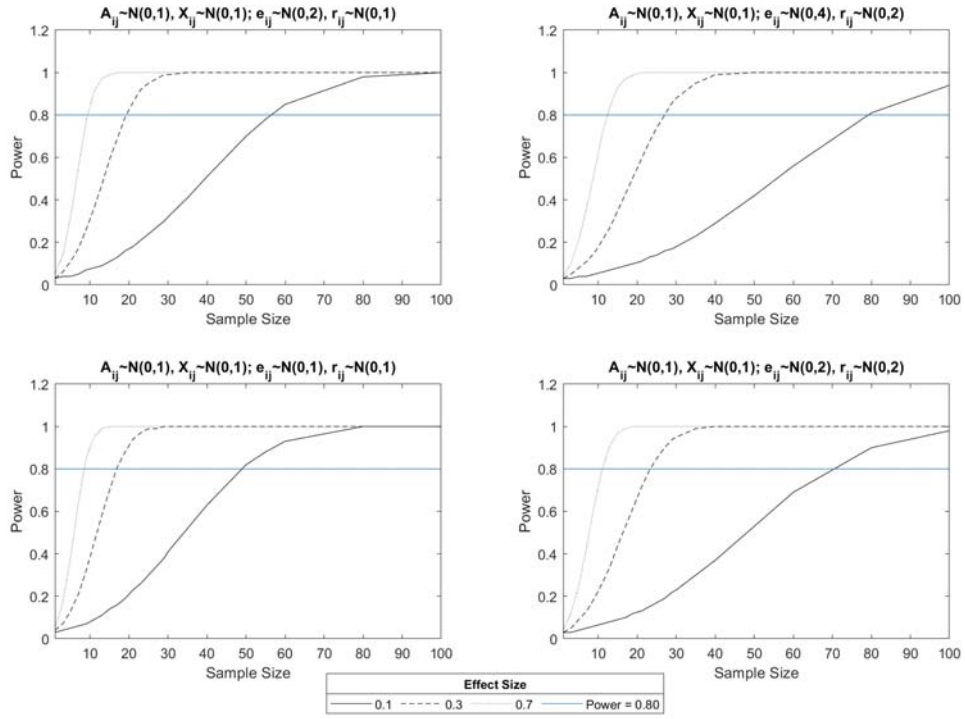


**Figure 11. Level-2 HLM power versus sample size plots for intercepts ($\beta_{00}$ and $\beta_{10}$) and slopes ($\beta_{01}$ and $\beta_{11}$) with predictor variances $\sigma_A^2 = \sigma_X^2 = 1.0$.**

largest. For comparison, this research associates the first number, n, with Level-1 and the second number, g, with Level-2.

Previous Level-2 HLM analysis, detailed in Chapter 2, primarily looked at the cases with predictor variance $\sigma_A^2 = 1.0$ and $\sigma_X^2 = 1.0$ and Level-1 error variance 1.0 at Level-1 for varying ICC values (which then determined the error variance term for Level-2, $\sigma_r^2$). To achieve sufficient power of 0.80 for different estimated effect sizes, this research found that when the Level-1 error variance $\sigma_e^2 = 1.0$, the 30 samples at Level-1 and Level-2 general rule of thumb was not met for low estimated effect sizes (e.g., 0.1), which required 49 samples at each level (Table 5). But for higher estimated effect sizes (0.3 and 0.7), the minimum number of sample sizes at each level was found to be 17 and 9, respectively. That is, about half and less than half of the general rule, respectively (Table 5, Figures 11 and 15). When estimated effect size was moderate (0.3) or large (0.7), adequate power was achievable. For low estimated effect size (0.1), adequate power was also achieved at a

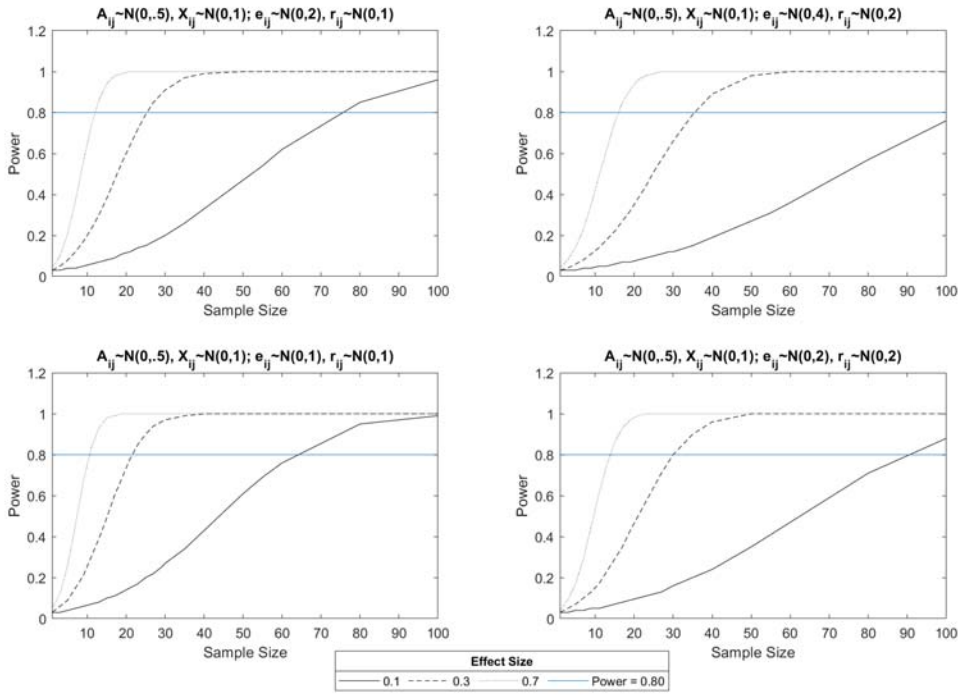


**Figure 12. Level-2 HLM power versus sample size plots for Level-1 intercept equations ($\beta_{00}$ and $\beta_{01}$) with predictor variances $\sigma_A^2 = 0.5$ and $\sigma_X^2 = 1.0$.**

higher sample size $n = g = 49$.

For all Level-2 predictor variance assumptions when sufficient power of 0.80 was met, as the estimated effect sizes (0.1, 0.3, 07) increased the number of samples required to achieve at least 0.80 power per level decreased. For example, in Table 5, the Level-2 HLM intercepts and slopes with predictor variance $\sigma_A^2 = 1.0$ and $\sigma_X^2 = 1.0$, and error variance $\sigma_e^2 = 2.0$ and $\sigma_r^2 = 1.0$ requires 50, 20, and 10 sample sizes at Level-1 and Level-2 when $n = g$ for estimated effect sizes 0.1, 0.3, and 0.7, respectively. In other words, estimated effect size 0.7 requires 40 fewer sample sizes per level than estimated effect size 0.1. Also, if the smallest pair of $(n, g)$ is considered for the same scenarios, such that the smallest value for Level-1 or Level-2 is considered, 40, 15, and 10 (for n) and 80, 25, and 90 (for g) samples per level for estimated effect sizes 0.1, 0.3, and 0.7, respectively. With unequal sample sizes, estimated effect size 0.7 requires 36.7% fewer overall sample sizes per level than estimated effect size 0.1. The specific Level-2 HLM sample size recommendations to achieve at least 0.80 power for all intercepts and slopes are outlined in Table 5 and Figures

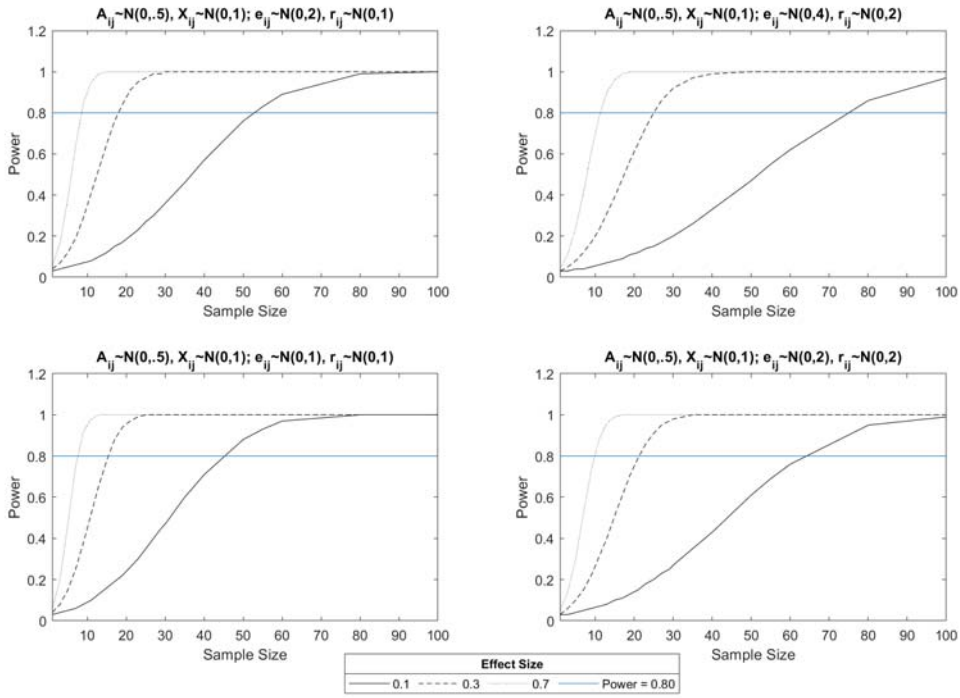


**Figure 13. Level-2 HLM power versus sample size plots for Level-1 slope equations ($\beta_{10}$ and $\beta_{11}$) with predictor variances $\sigma_A^2 = 0.5$ and $\sigma_X^2 = 1.0$.**

11 to 15.

For all Level-2 HLM parameters ($\beta_{00}, \beta_{10}, \beta_{01}, \beta_{11}$), as the error variance values double (Table 2: Case 1 versus Case 2, and Figures 11 to 15) for all simulation cases, the sample sizes needed per level increased (Table 5). All the Level-2 power versus sample size plots show this when comparing the left-hand side to the right-hand side of each figure (Figures 11 to 15). For example, for the Level-2 HLM slopes ($\beta_{01}, \beta_{11}$) with predictor variance $\sigma_A^2 = 1.0$ and $\sigma_X^2 = 1.0$, when the error variance $\sigma_e^2 = 2.0$ and $\sigma_r^2 = 1.0$ increase to $\sigma_e^2 = 4.0$ and $\sigma_r^2 = 2.0$, the number of samples required at Level-1 and Level-2 when $n = g$ is 23, 7, and 3 more samples per level to achieve at least 0.80 power for estimated effect sizes 0.1, 0.3, and 0.7, respectively (Table 5 and Figure 11). For the same scenario, the smallest pair $(n, g)$ requires an additional 40, 10, and 8 (for n) and 0, 4, 73 (for g) samples per level for estimated effect sizes 0.1, 0.3, and 0.7, respectively (Table 5).

For all scenarios considered, as the error variance at Level-1, $\sigma_e^2$, increased, the sample sizes required per level to achieve minimum power of 0.80 for Level-2 HLM parameters

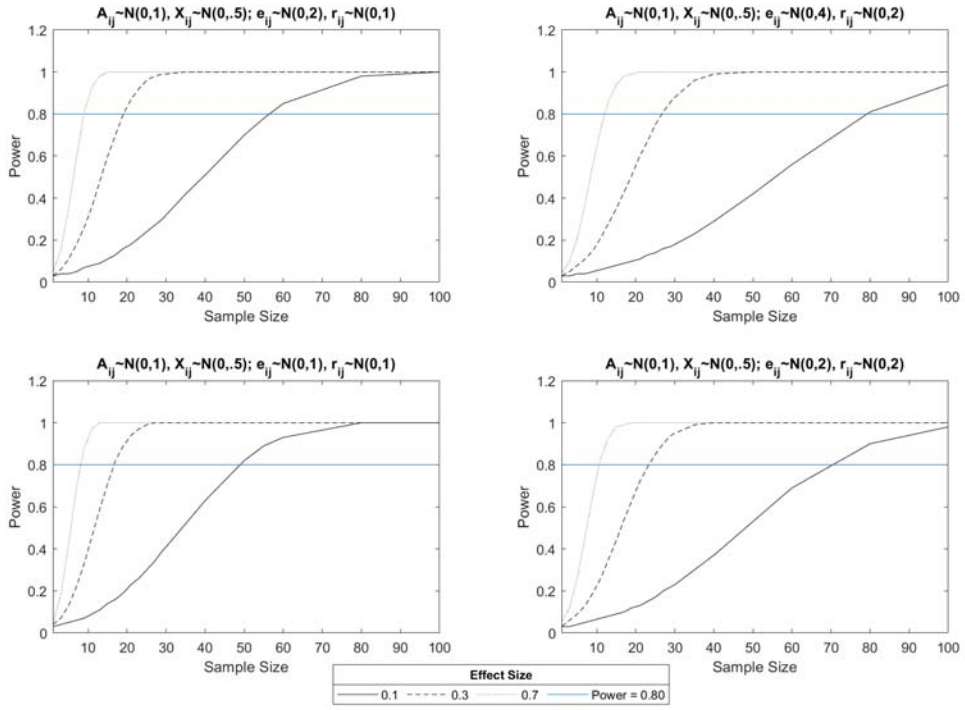


**Figure 14. Level-2 HLM power versus sample size plots for pure intercepts ($\beta_{00}$ and $\beta_{10}$) with predictor variances $\sigma_A^2 = 1.0$ and $\sigma_X^2 = 0.5$.**

$(\beta_{00}, \beta_{10}, \beta_{01}, \beta_{11})$, increased for all estimated effect sizes. For example, for the Level-2 HLM intercepts and slopes with predictor variance $\sigma_A^2 = \sigma_X^2 = 1.0$ and Level-2 error variance $\sigma_r^2 = 1.0$, when the Level-1 error variance $\sigma_e^2 = 1.0$ increased to $\sigma_e^2 = 2.0$, the number of samples required at Level-1 and Level-2 when $n = g$ is 8, 3, and 1 more samples per level for estimated effect sizes 0.1, 0.3, and 0.7, respectively. The smallest pair $(n, g)$ requires a difference of 10, 2, and 2 (for n) and 0, 8, and 65 (for g) samples per level for estimated effect sizes 0.1, 0.3, and 0.7, respectively (Table 5 and Figure 11: top and bottom).

As the Level-1 predictor variance decreases from $\sigma_A^2 = 1.0$ to 0.5, the sample sizes required per level to achieve a minimum power of 0.80 decreased for intercept and slope $(\beta_{00}, \beta_{01})$ of the Level-1 intercept parameter equations and increased for the intercept and slope $(\beta_{10}, \beta_{11})$ of the Level-1 slope parameter equations for all estimated effect sizes. For example, for the intercept and slope $(\beta_{00}, \beta_{01})$ of the Level-1 intercept parameter equations

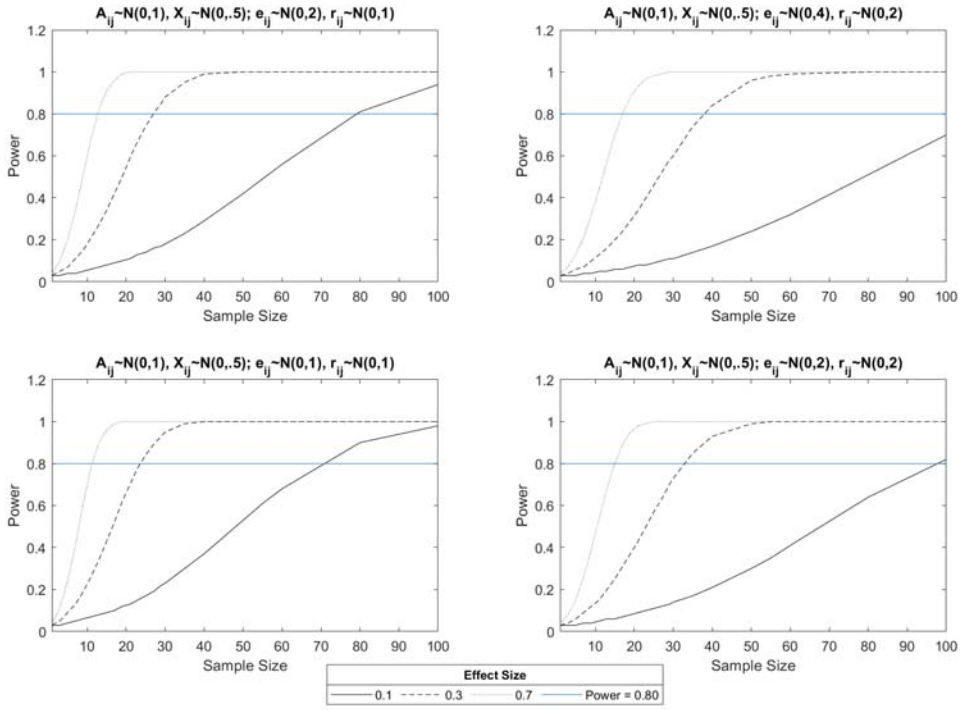


**Figure 15. Level-2 HLM power versus sample size plots for large interactions ($\beta_{01}$ and $\beta_{11}$) with predictor variances $\sigma_A^2 = 1.0$ and $\sigma_X^2 = 0.5$.**

with predictor variance $\sigma_A^2 = \sigma_X^2 = 1.0$ and error variance $\sigma_e^2 = \sigma_r^2 = 1.0$ compared to Level-1 predictor variance $\sigma_A^2 = 0.5$, the number of samples required at Level-1 and Level-2 for $n = g$ decreased by 5, 1, and 1 fewer sample sizes per level for estimated effect sizes 0.1, 0.3, and 0.7, respectively (Table 5 and Figure 12). Whereas, for the intercept and slope $(\beta_{10}, \beta_{11})$ of the Level-1 HLM slope parameter equations, the number of samples required at Level-1 and Level-2 for $n = g$ increased by 15, 5, and 2 more sample sizes per level for estimated effect sizes 0.1, 0.3, and 0.7, respectively (Table 5 and Figure 13).

As the Level-2 predictor variance decreases from $\sigma_X^2 = 1.0$ to 0.5, the sample sizes required per level are the same for pure intercepts $(\beta_{00}, \beta_{10})$ and increase for large interactions $(\beta_{01}, \beta_{11})$ when sufficient power of 0.80 is achieved. For example, for the Level-2 HLM intercepts with predictor variance $\sigma_A^2 = \sigma_X^2 = 1.0$ and error variance $\sigma_e^2 = \sigma_r^2 = 1.0$ compared to pure intercepts with Level-2 predictor distribution $\sigma_X^2 = 0.5$, the number of required sample sizes at Level-1 and Level-2 when $n = g$ require the same

number of sample sizes per level for estimated effect size 0.1 and 0,3, with the exception of sample size rounding for estimated effect size 0.7 (Table 5 and Figure 11 and 14). Whereas, for the same scenario for large interactions, the number of required sample sizes at Level-1 and Level-2 when $n = g$ requires a difference of 23, 8, and 1 sample sizes per level for effects sizes 0.1, 0.3, and 0.7, respectively (Table 5 and Figure 11 and 15).

In general, for a Level-2 HLM to achieve sufficient power of 0.80 for different estimated effect sizes this research found that:

- 30 samples at Level-1 and Level-2 general rule of thumb was not met for low estimated effect sizes (e.g., 0.1), which required at least 49 samples at each level. But for higher estimated effect sizes (0.3 and 0.7), the minimum number of samples at each level was found to be 17, almost half of the general rule.

- As the estimated effect sizes (0.1, 0.3, 07) increased for all parameters ($\beta_{00}, \beta_{10}, \beta_{01}, \beta_{11}$) the number of samples required per a level decreased.

- When error variance ($\sigma_e^2$ and $\sigma_r^2$) values double (Figures 11 to 15 right-hand side compared to left-hand side) for both intercepts ($\beta_{00}, \beta_{10}$) and slopes ($\beta_{01}, \beta_{11}$), the sample sizes needed per level increased.

- If the error variance at Level-1, $\sigma_e^2$, increased, the sample sizes required for all parameters increased for all estimated effect sizes considered.

- As the predictor variance at Level-1, $\sigma_A^2$, decreased from 1.0 to 0.5, the sample sizes for decreased for Level-1 intercept parameter equations ($\beta_{00}, \beta_{01}$) and increased for Level-1 slope parameter equations ($\beta_{10}, \beta_{11}$) for all estimated effect sizes.

- When the predictor variance at Level-2, $\sigma_X^2$, decreased from 1.0 to 0.5, the sample sizes required per level increases for the large interactions ($\beta_{01}, \beta_{11}$) and sample sizes did not change for pure intercepts ($\beta_{00}, \beta_{10}$).

For this Level-2 HLM simulation all sample sizes tables for every combination is provided in Appendix B.1.

**Level-3 HLM Sample Size Recommendations.**

Similar to the Level-2 HLM simulation procedure, this research used the combined Level-3 HLM measurement model specified in Equation 44 and restated here: $Y_{ijk} = \gamma_{000} + \gamma_{010}X_{ijk} + \gamma_{001}W_{ijk} + \gamma_{011}X_{ijk}W_{ijk} + \gamma_{100}A_{ijk} + \gamma_{101}A_{ijk}W_{ijk} + \gamma_{110}A_{ijk}X_{ijk} + \gamma_{111}A_{ijk}X_{ijk}W_{ijk} + u_{11k}A_{ijk}X_{ijk} + u_{00k} + u_{01k}X_{ijk} + u_{10k}A_{ijk} + r_{1jk}A_{ijk} + r_{0jk} + e_{ijk}$. To accomplish Research Objective 1 Level-3 HLM analysis, five conditions were considered to determine the sample size requirements for a Level-3 HLM. The five conditions considered were:

**1)** the number of individuals, groups, and units at Level-1, Level-2 and Level-3, respectively, varied between 1 and 100;

**2)** two initial Level-1 error variances ($\sigma_e^2 = 1.0, 2.0$);

**3)** three cases for Level-3 error variance in which 1) Level-3, Level-2, and Level-1 decrease in values 2) Level-3 and Level-2 equal Level-1 error variance, and 3) Level-3 and Level-2 error variance is half that of Level-1 (Table 6);

**4)** three simulation cases for predictor variance in which 1) Level-3 and Level-2 equal Level-1 error variance, 2) Level-3 and Level-2 error variance is twice that of Level-1, and 3) Level-3 and Level-2 are half that of Level-1 (Table 7); and

**5)** three levels of parameter estimated effect sizes (0.1, 0.3, 0.7).

The three cases for error variance by level were based on realistic operational distributions where the variability of individuals at Level-1 is greater than or equal to the variability of groups and units at higher levels (Level-2 and Level-3). The associated simulation values are shown in Table 6. The error variance assumptions and variance terms were chosen similar to literature of Level-2 HLM analysis and such that the ICC values were generally moderate and largest at the lowest level. The comparable ICC values for each case are given in Table 8.

**Table 6. Level-3: initial Level-1 error variance case assumptions and associated error variance values for each simulation case**

| Initial Level-1 Value | Level | Error Variance Assumptions Simulation Case | | | Error Variance Values Simulation Case | | |
|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 1 | 2 | 3 |
| $\sigma_e^2 = 1.0$ | Level-1 | $4\sigma_e^2$ | $\sigma_e^2$ | $2\sigma_e^2$ | 4.0 | 1.0 | 2.0 |
| | Level-2 | $2\sigma_e^2$ | $\sigma_e^2$ | $\sigma_e^2$ | 2.0 | 1.0 | 1.0 |
| | Level-3 | $\sigma_e^2$ | $\sigma_e^2$ | $\sigma_e^2$ | 1.0 | 1.0 | 1.0 |
| $\sigma_e^2 = 2.0$ | Level-1 | $4\sigma_e^2$ | $\sigma_e^2$ | $2\sigma_e^2$ | 8.0 | 2.0 | 4.0 |
| | Level-2 | $2\sigma_e^2$ | $\sigma_e^2$ | $\sigma_e^2$ | 4.0 | 2.0 | 2.0 |
| | Level-3 | $\sigma_e^2$ | $\sigma_e^2$ | $\sigma_e^2$ | 2.0 | 2.0 | 2.0 |

**Table 7. Level-3: simulation cases for predictor distributions by level**

| Level | Predictor Distribution | Predictor Variance Term | Variance Values for Simulation Case | | |
|---|---|---|---|---|---|
| | | | 1 | 2 | 3 |
| 1 | $A_{ijkl} \sim N(0, \sigma_A^2$ | $\sigma_A^2$ | 1.0 | 0.5 | 1.0 |
| 2 | $X_{ijk} \sim N(0, \sigma_X^2$ | $\sigma_X^2$ | 1.0 | 1.0 | 0.5 |
| 3 | $W_{ijk} \sim N(0, \sigma_W^2$ | $\sigma_W^2$ | 1.0 | 1.0 | 0.5 |

### Level-3 HLM Power Simulation Results.

The power, $z_\pi$, first generally introduced in Equation 19, of a Level-3 HLM is

$$z_\pi \approx \Phi\left(\frac{\hat{\gamma} - \gamma}{s.e.(\hat{\gamma})} - z_{1-\alpha/2}\right)$$

such that:

$\pi$ is the minimum power considered equal to 0.80;

$z_\pi$ is $z_{0.80}$ for the minimum power considered. Based on the standard normal table, the z-score is 0.7881;

$\hat{\gamma} - \gamma$ is the estimated effect size for the assumed values $0.1, 0.3,$ and $0.7$;

$z_{1-\alpha/2}$ is $z_{0.975}$ for the significance value $\alpha$ equal to 0.05. Based on the standard normal

**Table 8. Level-3: intraclass correlation (ICC) values for: the proportion of variance of individuals ($ICC_1$), the proportion of variance among groups ($ICC_2$), and the proportion of variance of units ($ICC_3$).**

| Simulation Case | Variance Values by Level<br><br>Level-1 Level-2 Level-3 | Intraclass Correlation<br>$ICC_1 = \frac{\sigma_e^2}{\sigma_e^2+\sigma_r^2+\sigma_u^2}$<br>$ICC_2 = \frac{\sigma_r^2}{\sigma_e^2+\sigma_r^2+\sigma_u^2}$<br>$ICC_3 = \frac{\sigma_u^2}{\sigma_e^2+\sigma_r^2+\sigma_u^2}$ |
|---|---|---|
| 1 | $\sigma_e^2 = 4.0\ \sigma_r^2 = 2.0\ \sigma_u^2 = 1.0$ | $ICC_1 = \frac{4}{4+2+1} = 0.571$<br>$ICC_2 = \frac{2}{4+2+1} = 0.286$<br>$ICC_3 = \frac{1}{4+2+1} = 0.143$ |
| 1 | $\sigma_e^2 = 8.0\ \sigma_r^2 = 4.0\ \sigma_u^2 = 2.0$ | $ICC_1 = \frac{8}{8+4+2} = 0.571$<br>$ICC_2 = \frac{4}{8+4+2} = 0.286$<br>$ICC_3 = \frac{2}{8+4+2} = 0.143$ |
| 2 | $\sigma_e^2 = 1.0\ \sigma_r^2 = 1.0\ \sigma_u^2 = 1.0$ | $ICC_1 = \frac{1}{1+1+1} = 0.333$<br>$ICC_2 = \frac{1}{1+1+1} = 0.333$<br>$ICC_3 = \frac{1}{1+1+1} = 0.333$ |
| 2 | $\sigma_e^2 = 2.0\ \sigma_r^2 = 2.0\ \sigma_u^2 = 2.0$ | $ICC_1 = \frac{2}{2+2+2} = 0.333$<br>$ICC_2 = \frac{2}{2+2+2} = 0.333$<br>$ICC_3 = \frac{2}{2+2+2} = 0.333$ |
| 3 | $\sigma_e^2 = 2.0\ \sigma_r^2 = 1.0\ \sigma_u^2 = 1.0$ | $ICC_1 = \frac{2}{2+1+1} = 0.5$<br>$ICC_2 = \frac{1}{2+1+1} = 0.25$<br>$ICC_3 = \frac{1}{2+1+1} = 0.25$ |
| 3 | $\sigma_e^2 = 4.0\ \sigma_r^2 = 2.0\ \sigma_u^2 = 2.0$ | $ICC_1 = \frac{4}{4+2+2} = 0.5$<br>$ICC_2 = \frac{2}{4+2+2} = 0.25$<br>$ICC_3 = \frac{2}{4+2+2} = 0.25$ |

table, the z-score is 1.96;

$s.e.(\hat{\gamma})$ are the derived diagonal elements of the $s.e.(\gamma)$ matrix for the parameter vector [$\gamma_{000}$, $\gamma_{100}$, $\gamma_{010}$, $\gamma_{110}$, $\gamma_{001}$, $\gamma_{101}$, $\gamma_{011}$ and $\gamma_{111}$] as given in Equation 16.

For equal and varying sample sizes at Level-1, Level-2 and Level-3, the power is computed for each sample set of the five conditions outlined in the Level-3 HLM simulation procedure (Table 9 and Figures 16 to 21). Based on the assumed predictor variances, the figures illustrate plot comparisons for Level-3 HLM intercepts ($\gamma_{000}$, $\gamma_{100}$, $\gamma_{010}$, $\gamma_{110}$) and slopes ($\gamma_{001}$, $\gamma_{101}$, $\gamma_{011}$, $\gamma_{111}$) when $\sigma_A^2 = \sigma_X^2 = \sigma_W^2 = 1.0$ (Figure 16), intercepts ($\gamma_{000}$, $\gamma_{010}$) and slopes ($\gamma_{001}$, $\gamma_{011}$) for Level-2 intercept parameter equations

**Table 9. Level-3 HLM sample size suggestions for sufficient power ($\geq 80\%$) based on assumed predictor variances, error variances, and estimated effect sizes.**

| Level-3 Sample Size Suggestions | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Effect Size | | | | | |
| | | | | | | 0.1 | | 0.3 | | 0.7 | |
| Predictor Variance | | | Error Variance | | | Sample Size | | | | | |
| Level-1: $A_{ijk} \sim N(0, \sigma_A^2)$ $\sigma_A^2$ | Level-2: $X_{ijk} \sim N(0, \sigma_X^2)$ $\sigma_X^2$ | Level-2: $W_{ijk} \sim N(0, \sigma_W^2)$ $\sigma_W^2$ | Level-1: $e_{ijk} \sim N(0, \sigma_e^2)$ $\sigma_e^2$ | Level-2: $r_{ijk} \sim N(0, \sigma_r^2)$ $\sigma_r^2$ | Level-3: $u_{ijk} \sim N(0, \sigma_u^2)$ $\sigma_u^2$ | (n, g, h) for n = g = h | $(n, g, h)$ for smallest group | (n, g, h) for n = g = h | $(n, g, h)$ for smallest group | (n, g, h) for n = g = h | (n, g, h) for smallest group |
| Intercepts and Slopes: $\gamma_{000}, \gamma_{100}, \gamma_{010}, \gamma_{110}, \gamma_{001}, \gamma_{101}, \gamma_{011}, \gamma_{111}$ | | | | | | | | | | | |
| 1.0 | 1.0 | 1.0 | 4.0 | 2.0 | 1.0 | 20 | (13,21,29) | 10 | (7,7,19) | 7 | (1,13,17) |
| | | | 8.0 | 4.0 | 2.0 | 26 | (13,27,45) | 13 | (1,30,60) | 8 | (1,13,29) |
| | | | 1.0 | 1.0 | 1.0 | 17 | (3,29,55) | 9 | (1,13,45) | 6 | (1,9,17) |
| | | | 2.0 | 2.0 | 2.0 | 22 | (13,27,27) | 11 | (5,13,17) | 7 | (1,5,50) |
| | | | 2.0 | 1.0 | 1.0 | 18 | (9,23,27) | 9 | (1,23,29) | 6 | (1,13,13) |
| | | | 4.0 | 2.0 | 2.0 | 23 | (13,17,50) | 11 | (9,11,13) | 7 | (1,7,40) |
| Intercepts and Slopes for Level-2 Intercept Parameter Equation: $\gamma_{000}, \gamma_{010}, \gamma_{001}, \gamma_{011}$ | | | | | | | | | | | |
| 0.5 | 1.0 | 1.0 | 4.0 | 2.0 | 1.0 | 20 | (7,29,35) | 10 | (1,15,55) | 6 | (1,11,17) |
| | | | 8.0 | 4.0 | 2.0 | 25 | (7,45,45) | 12 | (1,23,70) | 7 | (1,11,30) |
| | | | 1.0 | 1.0 | 1.0 | 16 | (7,21,27) | 8 | (1,21,23) | 5 | (1,3,40) |
| | | | 2.0 | 2.0 | 2.0 | 20 | (13,21,29) | 10 | (1,23,40) | 6 | (1,5,40) |
| | | | 2.0 | 1.0 | 1.0 | 17 | (5,19,50) | 9 | (1,21,27) | 6 | (1,11,13) |
| | | | 4.0 | 2.0 | 2.0 | 22 | (13,27,27) | 11 | (9,11,11) | 7 | (1,3,80) |
| Intercepts and Slopes for Level-2 Slope Parameter Equations: $\gamma_{100}, \gamma_{110}, \gamma_{101}, \gamma_{111}$ | | | | | | | | | | | |
| 0.5 | 1.0 | 1.0 | 4.0 | 2.0 | 1.0 | 25 | (7,29,70) | 12 | (1,30,55) | 8 | (1,15,25) |
| | | | 8.0 | 4.0 | 2.0 | 31 | (7,45,90) | 15 | (3,27,40) | 9 | (1,11,60) |
| | | | 1.0 | 1.0 | 1.0 | 20 | (15,23,23) | 10 | (3,11,29) | 7 | (1,3,80) |
| | | | 2.0 | 2.0 | 2.0 | 26 | (13,27,45) | 13 | (3,21,29) | 8 | (1,19,21) |
| | | | 2.0 | 1.0 | 1.0 | 22 | (5,19,100) | 11 | (1,25,45) | 7 | (1,13,21) |
| | | | 4.0 | 2.0 | 2.0 | 27 | (15,23,55) | 13 | (3,25,29) | 8 | (1,19,25) |
| Pure Intercepts: $\gamma_{000}, \gamma_{100}$ | | | | | | | | | | | |
| 1.0 | 0.5 | 0.5 | 4.0 | 2.0 | 1.0 | 20 | (7,29,35) | 10 | (3,13,21) | 6 | (1,5,35) |
| | | | 8.0 | 4.0 | 2.0 | 25 | (7,45,45) | 12 | (1,40,40) | 7 | (1,11,29) |
| | | | 1.0 | 1.0 | 1.0 | 16 | (9,11,40) | 8 | (1,19,25) | 5 | (1,5,23) |
| | | | 2.0 | 2.0 | 2.0 | 20 | (13,21,29) | 10 | (1,9,100) | 6 | (1,7,27) |
| | | | 2.0 | 1.0 | 1.0 | 17 | (5,19,50) | 9 | (1,19,29) | 5 | (1,5,25) |
| | | | 4.0 | 2.0 | 2.0 | 22 | (3,35,90) | 11 | (1,27,40) | 7 | (1,13,17) |
| Individual Predictors: $\gamma_{010}, \gamma_{110}, \gamma_{001}, \gamma_{101}$ | | | | | | | | | | | |
| 1.0 | 0.5 | 0.5 | 4.0 | 2.0 | 1.0 | 25 | (7,29,70) | 12 | (5,13,25) | 8 | (1,15,23) |
| | | | 8.0 | 4.0 | 2.0 | 31 | (7,45,90) | 15 | (1,40,80) | 9 | (7,7,13) |
| | | | 1.0 | 1.0 | 1.0 | 20 | (13,21,29) | 10 | (7,7,19) | 7 | (1,13,17) |
| | | | 2.0 | 2.0 | 2.0 | 26 | (13,27,45) | 13 | (1,30,60) | 8 | (1,13,29) |
| | | | 2.0 | 1.0 | 1.0 | 22 | (13,27,270 | 11 | (5,13,17) | 7 | (1,5,50) |
| | | | 4.0 | 2.0 | 2.0 | 27 | (3,70,90) | 13 | (1,27,80) | 8 | (1,11,40) |
| Large Interactions: $\gamma_{011}, \gamma_{111}$ | | | | | | | | | | | |
| 1.0 | 0.5 | 0.5 | 4.0 | 2.0 | 1.0 | 31 | (15,19,100) | 15 | (5,13,50) | 9 | (1,23,30) |
| | | | 8.0 | 4.0 | 2.0 | 39 | (7,90,90) | 19 | (1,80,80) | 11 | (1,23,55) |
| | | | 1.0 | 1.0 | 1.0 | 26 | (23,23,30) | 13 | (11,13,13) | 8 | (1,15,29) |
| | | | 2.0 | 2.0 | 2.0 | 32 | (13,27,90) | 16 | (1,40,90) | 10 | (3,11,23) |
| | | | 2.0 | 1.0 | 1.0 | 27 | (15,23,55) | 14 | (3,21,35) | 8 | (1,9,55) |
| | | | 4.0 | 2.0 | 2.0 | 34 | (7,60,90) | 17 | (11,17,23) | 10 | (1,11,80) |

when $\sigma_A^2 = 0.5$ and $\sigma_X^2 = \sigma_W^2 = 1.0$, (Figure 17), intercepts ($\gamma_{100}$ $\gamma_{110}$) and slopes ($\gamma_{101}$, and $\gamma_{111}$) for Level-2 slope parameter equations when $\sigma_A^2 = 0.5$ and $\sigma_X^2 = \sigma_W^2 = 1.0$ (Figure 18), pure intercepts ($\gamma_{000}$, $\gamma_{100}$) when $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = 0.5$ (Figure 19), individual predictors of the combined model ($\gamma_{010}$ $\gamma_{110}$, $\gamma_{001}$, $\gamma_{101}$) when $\sigma_A^2 = 1.0$ and

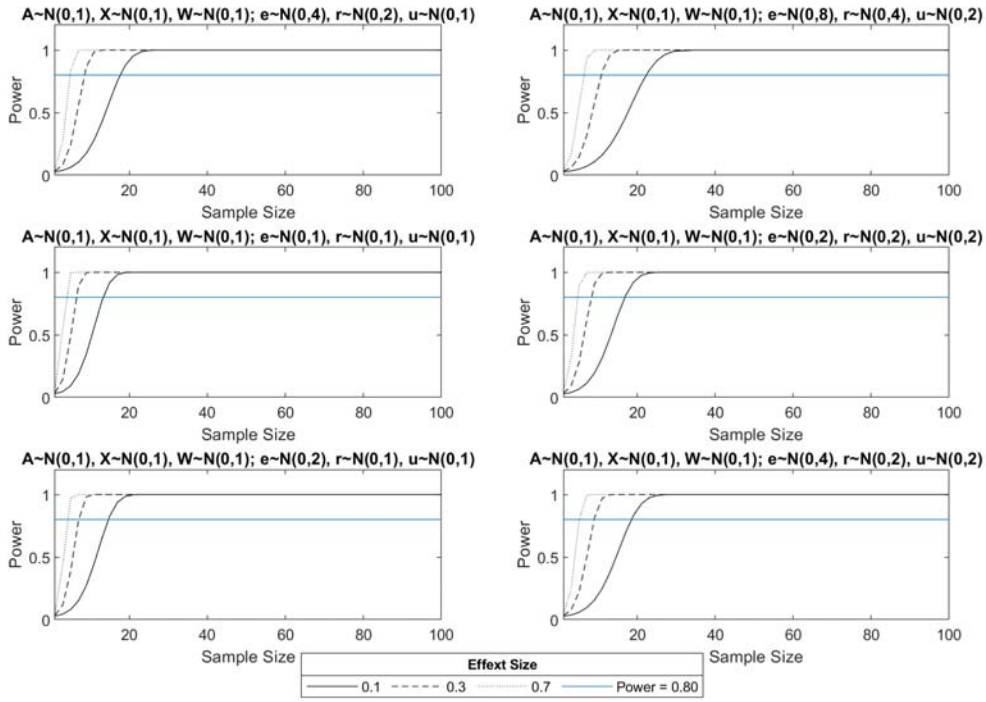


**Figure 16. Level-3 HLM power versus sample size plots for intercepts and slopes ($\gamma_{000}$, $\gamma_{100}$, $\gamma_{010}$, $\gamma_{110}$, $\gamma_{001}$, $\gamma_{101}$, $\gamma_{011}$ and $\gamma_{111}$) with $\sigma_A^2 = \sigma_X^2 = \sigma_W^2 = 1.0$.**

$\sigma_X^2 = \sigma_W^2 = 0.5$ (Figure 20), and slopes of large interactions ($\gamma_{011}$, $\gamma_{111}$) when $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = 0.5$ (Figure 21). Notice in each of these figures that overall sufficient power 0.80 is achieved generally with no more than a sample size of 20 per level.

The specific sample size recommendations to achieve at least 0.80 power for $n = g = h$ and the smallest sample size set $(n, g, h)$ for each predictor and error distribution are outlined in Table 9. The smallest sample size set refers to the set in which the smallest value for Level-1, Level-2, or Level-3 is found that results in at least 80% power. That is, numbers within the $(n, g, h)$ set are interchangeable between levels and are conventionally listed smallest to largest. For comparison, this research associates the first number, n, with Level-1, the second number, g, with Level-2, and the third number, h, with Level-3.

Comparing previous Level-2 sufficient sample sizes at each level for a minimum power of 0.80 to Level-3 samples sizes has not been done in previous studies. This research examined the general rule of thumb of 30 samples at each level to the 3rd-level of a Level-3

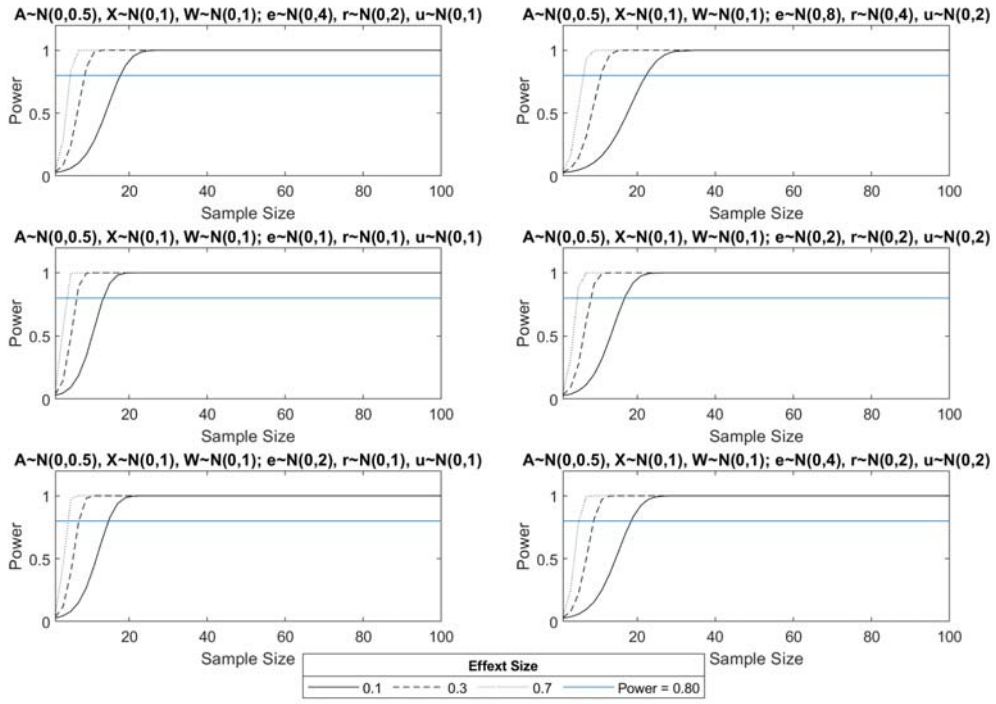


**Figure 17. Level-3 HLM power versus sample size plots for intercepts and slopes for Level-1 intercept parameter equations ($\gamma_{000}$, $\gamma_{010}$, $\gamma_{001}$, $\gamma_{011}$) with predictor variances $\sigma_A^2 = 0.5$ and $\sigma_X^2 = \sigma_W^2 = 1.0$.**

HLM and in Table 9 provided the exact sample size requirements to achieve at least 0.80 power in parameter testing. For different estimated effect sizes this research found that when predictor and error variance at Level-1, Level-2 and Level-3 equals 1.0 ($\sigma_A^2 = \sigma_X^2 = \sigma_W^2 = \sigma_e^2 = \sigma_r^2 = \sigma_u^2 = 1.0$) the assumption of 30 samples at Level-1, Level-2, and Level-3 to achieve a minimum power of 0.80 is more than sufficient because the minimum number of samples needed at each level was found to be 17 for estimated effect size 0.1, almost half of the general rule (Table 9), and 9 an 6 sample sizes per level for estimated effect size 0.3 and 0.7, respectively. In fact, at $n = g = h = 30$ for all estimated effect sizes (0.1, 0.3, 0.7) 1.00 power was achieved as shown in Appendix B.2.

Similar to the Level-2 HLM, for all Level-3 HLM scenarios considered, as the estimated effect size (0.1, 0.3, 0.7) increased, the number of samples for each level required to achieve a minimum power of 0.80 decreased. For example, in Table 9 and Figure 16, the Level-3 HLM intercepts ($\gamma_{000}$, $\gamma_{100}$,$\gamma_{010}$,$\gamma_{110}$) and slopes ($\gamma_{001}$,$\gamma_{101}$,$\gamma_{011}$,$\gamma_{111}$) with predictor

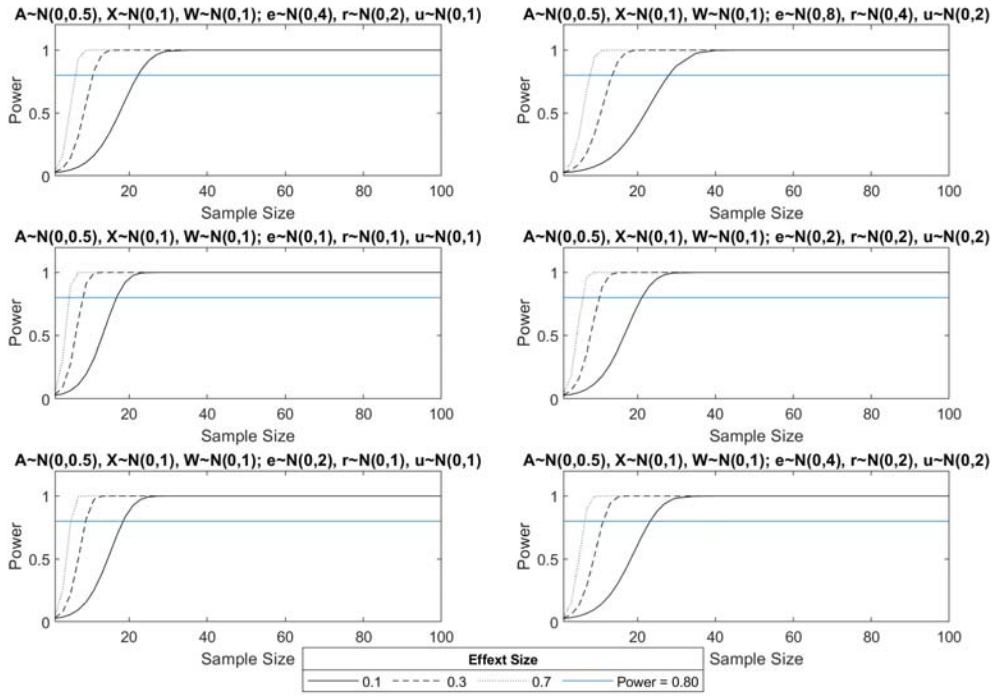


**Figure 18. Level-3 HLM power versus sample size plots for intercepts and slopes For Level-1 slope parameter equations ($\gamma_{100}$, $\gamma_{110}$, $\gamma_{101}$, $\gamma_{111}$) with predictor variances $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = 0.5$.**

variances $\sigma_A^2 = \sigma_X^2 = \sigma_W^2 = 1.0$, and error variances $\sigma_e^2 = 2.0$ and $\sigma_r^2 = \sigma_u^2 = 1.0$ required 18, 9, and 6 samples at Level-1, Level-2, and Level-3 when $n = g = h$ for estimated effect sizes 0.1, 0.3, and 0.7, respectively. In other words, estimated effect size 0.7 required 12 fewer samples per level than estimated effect size 0.1. Also, if the smallest set of $(n, g, h)$ is considered, then the associated sample size sets are (9,23,27), (1,23,29), and (1,13,13) at Level-1, Level-2, and Level-3 for estimated effect sizes 0.1, 0.3, and 0.7, respectively. With unequal sample sizes, estimated effect size 0.7 required 88.9% fewer samples at Level-1, 51.8% fewer samples at Level-2, and 43.5% fewer samples at Level-3 than estimated effect size 0.1 to achieve a minimum power of 0.80. That is the smallest set $(n, g, h)$ required a difference of 8 (for n), 20 (for g), and 24 (for h). Notice, the highest sample size differences are in the higher levels by convention. Furthermore, for larger estimated effect sizes, it is possible to achieve power by sampling a single unit or group.

As the error variance double (Table 6: Case 1 versus Case 2) for all Level-3 HLM

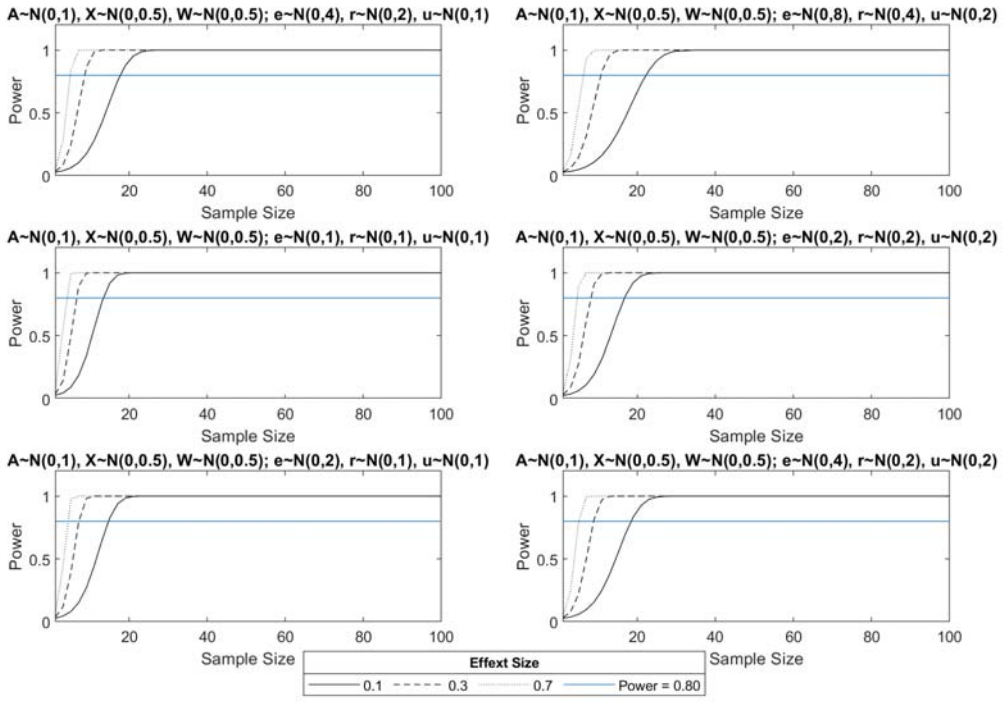


**Figure 19. Level-3 HLM power versus sample size plots for pure intercepts ($\gamma_{000}$,$\gamma_{100}$) with predictor variances $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = 0.5$.**

predictor and error variance scenarios, the sample sizes needed per level increase to achieve a minimum power of 0.80. This is demonstrated in Figures 16 to 21 when comparing the left-hand side to the right-hand side. For example, for the Level-3 HLM slopes of large interactions ($\gamma_{011}, \gamma_{111}$) with predictor variances $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = 0.5$, when the error variances increases from $\sigma_e^2 = 2.0$ and $\sigma_r^2 = \sigma_u^2 = 1.0$ to $\sigma_e^2 = 4.0$ and $\sigma_r^2 = \sigma_u^2 = 2.0$ the number of required samples at Level-1, Level-2, and Level-3 when $n = g = h$ is 5, 2, and 1 more samples per level for estimated effect sizes 0.1, 0.3, and 0.7, respectively, to achieve a minimum power of 0.80 (Table 6). The smallest set $(n, g, h)$ requires an increase of (8,37,35), (8,4,12), and (0,2,25) samples per each level for estimated effect sizes 0.1, 0.3, and 0.7, respectively (Table 6 and Figure 21).

As the error variance at Level-1, $\sigma_e^2$, increases, for all Level-3 HLM predictor variances considered, the sample sizes required to achieve a minimum power of 0.80, increases for all estimated effect sizes (Table 9 and Figures 16 to 21). For example, consider the Level-3

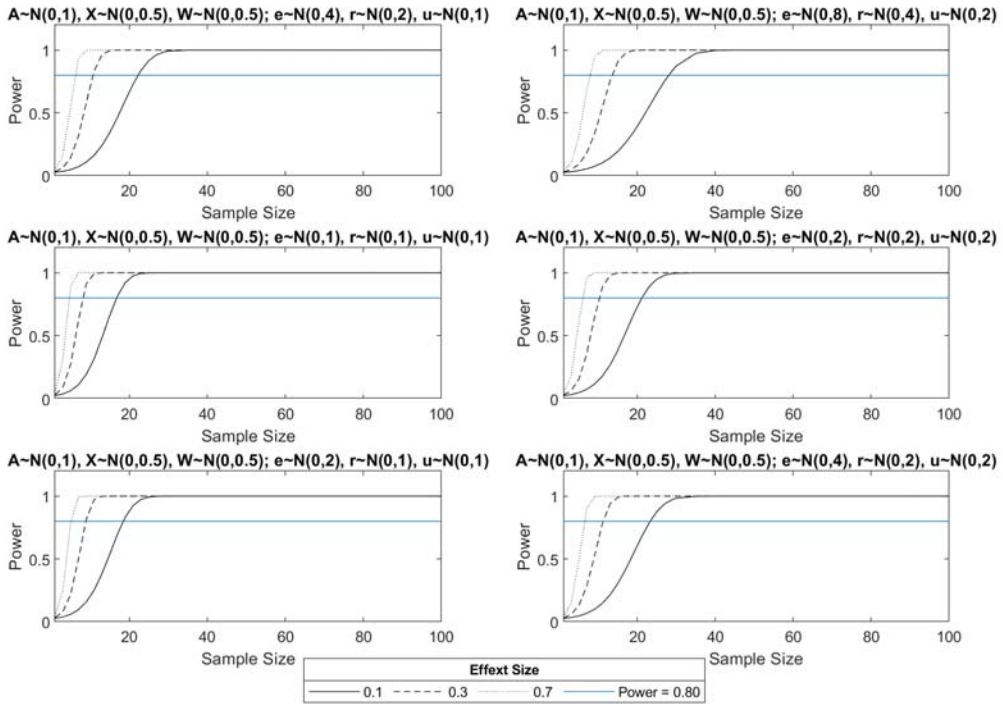


**Figure 20. Level-3 HLM power versus sample size plots for intercepts and slopes for individual predictors of the combined Model ($\gamma_{010}$, $\gamma_{110}$, $\gamma_{001}$, $\gamma_{101}$) with predictor variances $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = 0.5$.**

HLM large interactions ($\gamma_{011}, \gamma_{111}$) with predictor variances $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = 0.5$, and error variances $\sigma_e^2 = \sigma_r^2 = \sigma_u^2 = 1.0$. When the Level-1 error variance doubles from $\sigma_e^2 = 1.0$ to $\sigma_e^2 = 2.0$ the number of required samples at Level-1, Level-2, and Level-3 when $n = g = h$ is 6, 3, and 2 more samples per level for estimated effect sizes 0.1, 0.3, and 0.7, respectively, to achieve a minimum power of 0.80 (Table 9 and Figure 21).

As the predictor variance at Level-1, $\sigma_A^2$, decreases from 1.0 to 0.5, the sample sizes required generally stay the same or decrease by 1 sample sizes per a level for all estimated effect sizes for intercepts and slopes ($\gamma_{000}, \gamma_{010}, \gamma_{001,\gamma_{011}}$) of Level-2 intercept parameter equations and increase for intercept and slopes ($\gamma_{100}, \gamma_{110}, \gamma_{101}, \gamma_{111}$) for Level-2 slope parameter equations (Table 9 and Figures 17 to 18). For example, for the Level-3 HLM intercepts and slopes with predictor variances $\sigma_A^2 = \sigma_X^2 = \sigma_W^2 = 1.0$, and error variances $\sigma_e^2 = \sigma_r^2 = \sigma_u^2 = 1.0$ compared to Level-1 predictor variance $\sigma_A^2 = 0.5$ for the intercepts and slopes of the Level-2 slope parameter equations, the number of required samples at

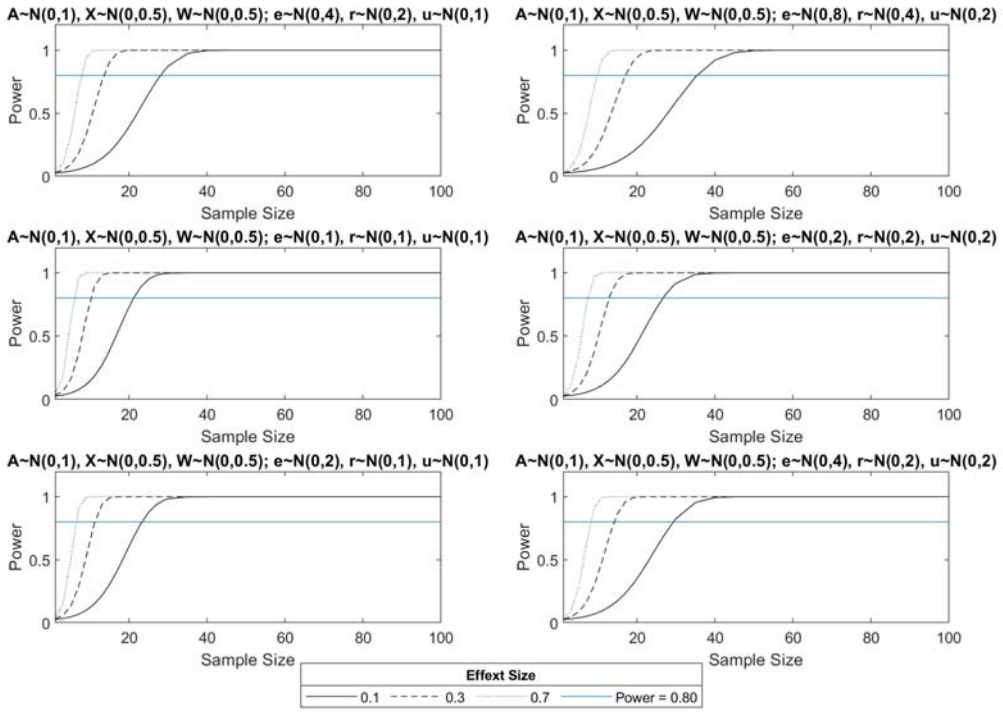


**Figure 21. Level-3 HLM power versus sample size plots for slopes of big interactions ($\gamma_{011}$, $\gamma_{111}$) with predictor variances $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = 0.5$.**

Level-1, Level-2, and Level-3 for equal sample sizes ($n = g = h$) is 3, 1, and 1 more samples per level for estimated effect sizes 0.1, 0.3, and 0.7, respectively (Table 9 and Figures 16 to 17). Whereas, to achieve a minimum power of 0.80 when predictor variances $\sigma_A^2 = \sigma_X^2 = \sigma_W^2 = 1.0$, and error variances $\sigma_e^2 = \sigma_r^2 = \sigma_u^2 = 1.0$ compared to Level-1 predictor variance $\sigma_A^2 = 0.5$ for Level-2 intercept parameter equations, the number of required samples at Level-1, Level-2, and Level-3 for equal sample sizes ($n = g = h$) is 1, 1, and 1 fewer sample sizes per level for estimated effect size 0.1, 0.3, and 0.7, respectively (Table 9 and Figure 17).

As the predictor variances at Level-2 and Level-3, $\sigma_X^2$ and $\sigma_W^2$, decreases from 1.0 to 0.5, the sample sizes required per level to achieve a minimum power of 0.80 generally increases for all estimated effect sizes for pure intercepts ($\gamma_{000}, \gamma_{100}$), individual predictors of the combined model ($\gamma_{010}, \gamma_{110}, \gamma_{001}, \gamma_{101}$), and large interactions ($\gamma_{011}, \gamma_{111}$) (Table 9 and Figures 19 to 21). For example, for the Level-3 HLM predictor distributions

$\sigma_A^2 = \sigma_X^2 = \sigma_W^2 = 1.0$ and error variance $\sigma_e^2 = \sigma_r^2 = \sigma_u^2 = 1.0$ compared to Level-3 predictor variances $\sigma_X^2 = \sigma_W^2 = 0.5$, the number of required samples at Level-1, Level-2, and Level-3 when $n = g = h$ for large interactions $(\gamma_{011}, \gamma_{111})$ is 9, 4, and 2 more samples per level for effects sizes 0.1, 0.3, and 0.7, respectively (Table 9 and Figures 16 and 19). To achieve a minimum power of 0.80, the smallest set $(n, g, h)$ required a difference of (20,6,25), (10,0,32), and (0,6,12) samples per level for estimated effect sizes 0.1, 0.3, and 0.7, respectively (Table 9 and Figures 16 and 19).

In general, Level-3 HLM sample size recommendations and trends are similar to Level-2 conclusions. For a Level-3 HLM to achieve sufficient power of 0.80 for different estimated effect sizes this research found that:

- The general rule of thumb was an over estimate for Level-3 HLM sample size requirements. 30 sample sizes at Level-1 and Level-2 did not extend to Level-3. Low estimated effect sizes (e.g., 0.1) required 17 samples at each level and higher estimated effect sizes (0.3 and 0.7), required a minimum of 9 and 6 sample sizes at each level, respectively.

- As the estimated effect sizes (0.1, 0.3, 07) increase for all Level-3 parameters $(\gamma_{000}, \gamma_{010}, \gamma_{001}, \gamma_{011}, \gamma_{100}, \gamma_{110}, \gamma_{101}, \gamma_{111})$ the number of samples required per level decreased.

- When error variance $(\sigma_e^2, \sigma_r^2, \sigma_u^2)$ values double (Figures 16 to 21 right-hand side compared to left-hand side) for all Level-3 parameters and estimated effect sizes the sample sizes needed per level increased.

- If the error variance at Level-1, $\sigma_e^2$, increased, the sample sizes required increased for all estimated effect sizes.

- As the predictor variance at Level-1, $\sigma_A^2$, decreased from 1.0 to 0.5, the sample sizes required generally stayed the same or decreased by 1 sample size per level for all estimated effect sizes considered (0.1, 0.3,0.7) for the intercepts and slopes of the

Level-2 intercept parameter equations and increased for Level-2 slope parameter equations.

- When the predictor variances at Level-2 and Level-3, $\sigma_X^2$ and $\sigma_W^2$, decreased from 1.0 to 0.5, the sample sizes required per level generally increased for individual predictors of the combined model ($\gamma_{010}, \gamma_{110}, \gamma_{001}, \gamma_{101}$) and large interactions ($\gamma_{011}, \gamma_{111}$), while minimally increasing for pure intercepts ($\gamma_{000}, \gamma_{100}$).

For this Level-3 HLM simulation, all sample size tables for every combinations within the simulation are provided in Appendix B.3.

**Level-4 HLM Sample Size Recommendations.**

Similar to the Level-2 and Level-3 HLM simulation procedure, this research used the combined Level-4 measurement model specified in Equation 29 and restated here: $Y_{ijkl} = \delta_{0000} + \delta_{1000}A_{ijkl} + \delta_{0100}X_{ijkl} + \delta_{0010}W_{ijkl} + \delta_{0001}Z_{ijkl} + \delta_{1100}A_{ijkl}X_{ijkl} + \delta_{1010}A_{ijkl}W_{ijkl} + \delta_{1001}A_{ijkl}Z_{ijkl} + \delta_{0110}X_{ijkl}W_{ijkl} + \delta_{0101}X_{ijkl}Z_{ijkl} + \delta_{0011}W_{ijkl}Z_{ijkl} + \delta_{1110}A_{ijkl}X_{ijkl}W_{ijkl} + \delta_{1101}A_{ijkl}X_{ijkl}Z_{ijkl} + \delta_{1011}A_{ijkl}W_{ijkl}Z_{ijkl} + \delta_{0111}X_{ijkl}W_{ijkl}Z_{ijkl} + \delta_{1111}A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl} + v_{111l}A_{ijkl}X_{ijkl}W_{ijkl} + v_{011l}X_{ijkl}W_{ijkl} + v_{101l}A_{ijkl}W_{ijkl} + v_{110l}A_{ijkl}X_{ijkl} + v_{001l}W_{ijkl} + v_{010l}X_{ijkl} + v_{100l}A_{ijkl} + v_{000l} + u_{11kl}A_{ijkl}X_{ijkl} + u_{00kl} + u_{01kl}X_{ijkl} + u_{10kl}A_{ijkl} + r_{1jkl}A_{ijkl} + r_{0jkl} + e_{ijkl}$. To accomplish Research Objective 1 Level-4 HLM analysis, five conditions were considered to determine the sample size requirements for a Level-4 HLM. The five conditions considered were:

**1)** the number of individuals, groups, units, and organizations at Level-1, Level-2, Level-3, and Level-4, respectively, varied between 1 and 100;

**2)** two initial Level-1 error variances ($\sigma_e^2 = 1.0, 2.0$);

**3)** three cases for Level-3 error variance in which 1) Level4, Level-3, Level-2, and Level-1 decrease in values 2) Level-4, Level-3 and Level-2 equal Level-1 error variance, and 3) Level-4, Level-3, and Level-2 error variance is half that of Level-1 (Table 10);

**4)** three simulation cases for predictor variance in which 1) Level-4, Level-3 and Level-2 equal Level-1 error variance, 2) Level-4, Level-3, and Level-2 error variance is twice that of Level-1, and 3) Level-4, Level-3, and Level-2 are half that of Level-1 (Table 11); and

**5)** three levels of parameter estimated effect sizes (0.1, 0.3, 0.7).

The three cases for error variance by level were based on realistic operational distributions where the variability of individuals at Level-1 is greater than or equal to the variability of groups, units, and organizations at higher levels (Level-2, Level-3, and Level-4). The associated simulation values are shown in Table 10. The error variance assumptions and variance terms were chosen similar to literature of Level-2 HLM analysis and such that the ICC values were generally moderate and largest at the lowest level. The comparable ICC values for each case is given in Table 12.

**Table 10. Level-4: initial Level-1 error variance case assumptions and associated error variance values for each simulation case**

| **Initial Level-1 Value** | **Level** | **Error Variance Assumptions** Simulation Case | | | **Error Variance Values** Simulation Case | | |
|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 1 | 2 | 3 |
| $\sigma_e^2 = 1.0$ | Level-1 | $8\sigma_e^2$ | $\sigma_e^2$ | $2\sigma_e^2$ | 8.0 | 1.0 | 2.0 |
| | Level-2 | $4\sigma_e^2$ | $\sigma_e^2$ | $\sigma_e^2$ | 4.0 | 1.0 | 1.0 |
| | Level-3 | $2\sigma_e^2$ | $\sigma_e^2$ | $\sigma_e^2$ | 2.0 | 1.0 | 1.0 |
| | Level-4 | $\sigma_e^2$ | $\sigma_e^2$ | $\sigma_e^2$ | 1.0 | 1.0 | 1.0 |
| $\sigma_e^2 = 2.0$ | Level-1 | $8\sigma_e^2$ | $\sigma_e^2$ | $2\sigma_e^2$ | 14.0 | 2.0 | 4.0 |
| | Level-2 | $4\sigma_e^2$ | $\sigma_e^2$ | $\sigma_e^2$ | 8.0 | 2.0 | 2.0 |
| | Level-3 | $2\sigma_e^2$ | $\sigma_e^2$ | $\sigma_e^2$ | 4.0 | 2.0 | 2.0 |
| | Level-4 | $\sigma_e^2$ | $\sigma_e^2$ | $\sigma_e^2$ | 2.0 | 2.0 | 2.0 |

**Table 11. Level-4 HLM sample size suggestions for sufficient power based on assumed predictor distributions, error variance distributions, and estimated effect sizes.**

| Level | Predictor Distribution | Predictor Variance Term | Variance Values for Simulation Case 1 | 2 | 3 |
|---|---|---|---|---|---|
| 1 | $A_{ijkl} \sim N(0, \sigma_A^2)$ | $\sigma_A^2$ | 1.0 | 0.5 | 1.0 |
| 2 | $X_{ijkl} \sim N(0, \sigma_X^2)$ | $\sigma_X^2$ | 1.0 | 1.0 | 0.5 |
| 3 | $W_{ijkl} \sim N(0, \sigma_W^2)$ | $\sigma_W^2$ | 1.0 | 1.0 | 0.5 |
| 4 | $Z_{ijkl} \sim N(0, \sigma_Z^2)$ | $\sigma_Z^2$ | 1.0 | 1.0 | 0.5 |

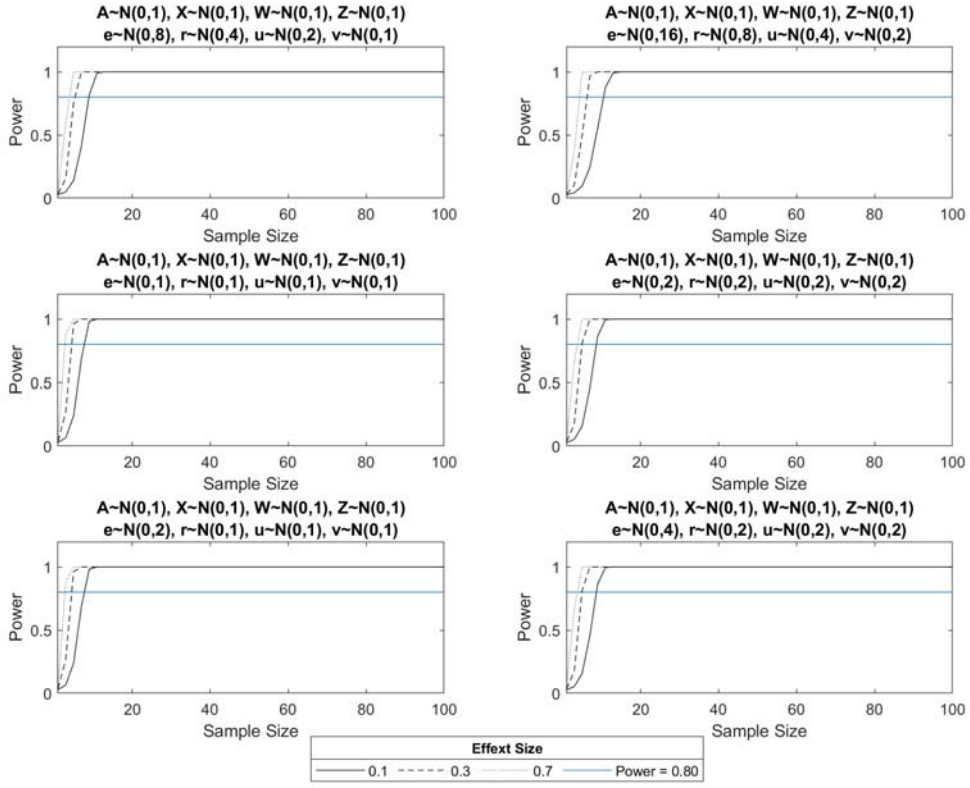


**Figure 22. Level-4 HLM power versus Sample size plots for intercepts ($\delta_{0000}$, $\delta_{0100}$, $\delta_{1000}$, $\delta_{1100}$, $\delta_{0010}$, $\delta_{0110}$, $\delta_{1010}$, $\delta_{1110}$) and slopes ($\delta_{0001}$, $\delta_{0101}$, $\delta_{1001}$, $\delta_{1101}$, $\delta_{0011}$, $\delta_{0111}$, $\delta_{1011}$,$\delta_{1111}$) with predictor variances $\sigma_A^2 = \sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 1.0$.**

## Level-4 HLM Power Simulation Results.

The power, $z_\pi$, first generally introduced in Equation 19, of a Level-4 HLM is

$$z_\pi \approx \Phi\left(\frac{\hat{\delta} - \delta}{s.e.(\hat{\delta})} - z_{1-\alpha/2}\right)$$

**Table 12. Level-4: intraclass correlation (ICC) values for: the proportion of variance of individuals ($ICC_1$), the proportion of variance among groups ($ICC_2$), the proportion of variance of units ($ICC_3$), and the proportion of variance of organizations ($ICC_4$).**

| **Simulation Case** | **Variance Values by Level**<br><br>Level-1 Level-2 Level-3 Level-4 | **Intraclass Correlation**<br>$ICC_1 = \frac{\sigma_e^2}{\sigma_e^2+\sigma_r^2+\sigma_u^2+\sigma_v^2}$<br>$ICC_2 = \frac{\sigma_r^2}{\sigma_e^2+\sigma_r^2+\sigma_u^2+\sigma_v^2}$<br>$ICC_3 = \frac{\sigma_u^2}{\sigma_e^2+\sigma_r^2+\sigma_u^2+\sigma_v^2}$<br>$ICC_4 = \frac{\sigma_v^2}{\sigma_e^2+\sigma_r^2+\sigma_u^2+\sigma_v^2}$ |
|---|---|---|
| 1 | $\sigma_e^2 = 8.0\ \sigma_r^2 = 4.0\ \sigma_u^2 = 2.0\ \sigma_v^2 = 1.0$ | $ICC_1 = \frac{8}{8+4+2+1} = 0.533$<br>$ICC_2 = \frac{4}{8+4+2+1} = 0.267$<br>$ICC_3 = \frac{2}{8+4+2+1} = 0.133$<br>$ICC_4 = \frac{1}{8+4+2+1} = 0.067$ |
| 1 | $\sigma_e^2 = 16.0\ \sigma_r^2 = 8.0\ \sigma_u^2 = 4.0\ \sigma_v^2 = 2.0$ | $ICC_1 = \frac{16}{16+8+4+2} = 0.533$<br>$ICC_2 = \frac{8}{16+8+4+2} = 0.267$<br>$ICC_3 = \frac{4}{16+8+4+2} = 0.133$<br>$ICC_4 = \frac{2}{16+8+4+2} = 0.067$ |
| 2 | $\sigma_e^2 = 1.0\ \sigma_r^2 = 1.0\ \sigma_u^2 = 1.0\ \sigma_v^2 = 1.0$ | $ICC_1 = \frac{1}{1+1+1+1} = 0.25$<br>$ICC_2 = \frac{1}{1+1+1+1} = 0.25$<br>$ICC_3 = \frac{1}{1+1+1+1} = 0.25$<br>$ICC_4 = \frac{1}{1+1+1+1} = 0.25$ |
| 2 | $\sigma_e^2 = 2.0\ \sigma_r^2 = 2.0\ \sigma_u^2 = 2.0\ \sigma_v^2 = 2.0$ | $ICC_1 = \frac{2}{2+2+2+2} = 0.25$<br>$ICC_2 = \frac{2}{2+2+2+2} = 0.25$<br>$ICC_3 = \frac{2}{2+2+2+2} = 0.25$<br>$ICC_4 = \frac{1}{2+2+2+2} = 0.25$ |
| 3 | $\sigma_e^2 = 2.0\ \sigma_r^2 = 1.0\ \sigma_u^2 = 1.0\ \sigma_v^2 = 1.0$ | $ICC_1 = \frac{2}{2+1+1+1} = 0.4$<br>$ICC_2 = \frac{1}{2+1+1+1} = 0.2$<br>$ICC_3 = \frac{1}{2+1+1+1} = 0.2$<br>$ICC_4 = \frac{1}{2+1+1+1} = 0.2$ |
| 3 | $\sigma_e^2 = 4.0\ \sigma_r^2 = 2.0\ \sigma_u^2 = 2.0\ \sigma_v^2 = 2.0$ | $ICC_1 = \frac{4}{4+2+2+2} = 0.4$<br>$ICC_2 = \frac{2}{4+2+2+2} = 0.2$<br>$ICC_3 = \frac{2}{4+2+2+2} = 0.2$<br>$ICC_4 = \frac{2}{4+2+2+2} = 0.2$ |

such that:

$\pi$ is the minimum power considered equal to 0.80;

$z_\pi$ is $z_\pi$ for the minimum power considered. Based on the standard normal table, the z-score is 0.7881;

**Table 13. Level-4 HLM sample size suggestions for sufficient power ($\geqq 80\%$) based on assumed predictor variances, error variances, and estimated effect sizes.**

| Level-4 Sample Size Suggestions | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Effect Size | | | | | |
| | | | | | | | | 0.1 | | 0.3 | | 0.7 | |
| Predictor Distributions | | | | Error Variance Distributions | | | | Sample Size | | | | | |
| Level-1: $A_{ijkl} \sim N(0, \sigma_A^2)$ $\sigma_A^2$ | Level-2: $X_{ijkl} \sim N(0, \sigma_X^2)$ $\sigma_X^2$ | Level-3: $W_{ijkl} \sim N(0, \sigma_W^2)$ $\sigma_W^2$ | Level-4: $Z_{ijkl} \sim N(0, \sigma_Z^2)$ $\sigma_Z^2$ | Level-1: $e_{ijkl} \sim N(0, \sigma_e^2)$ $\sigma_e^2$ | Level-2: $r_{ijkl} \sim N(0, \sigma_r^2)$ $\sigma_r^2$ | Level-3: $u_{ijkl} \sim N(0, \sigma_u^2)$ $\sigma_u^2$ | Level-4: $v_{ijkl} \sim N(0, \sigma_v^2)$ $\sigma_v^2$ | $(n, g, \mathrm{h}, \mathrm{f})$ for $n = g = \mathrm{h} = \mathrm{f}$ | $(n, g, h, f)$ for Smallest group | $(n, g, \mathrm{h}, \mathrm{f})$ for $n = g = \mathrm{h} = \mathrm{f}$ | $(n, g, h)$ for Smallest group | $(\mathrm{n}, \mathrm{g}, \mathrm{h}, \mathrm{f})$ for $\mathrm{n} = \mathrm{g} = \mathrm{h} = \mathrm{f}$ | $(\mathrm{n}, \mathrm{g}, \mathrm{h}, \mathrm{f})$ for smallest group |
| Intercepts and Slopes: $\delta_{0000}, \delta_{0100}, \delta_{1000}, \delta_{1100}, \delta_{0010}, \delta_{0110}, \delta_{1010}, \delta_{1110}, \delta_{0001}, \delta_{0101}, \delta_{1001}, \delta_{1101}, \delta_{0011}, \delta_{0111}, \delta_{1011}, \delta_{1111}$ | | | | | | | | | | | | | |
| 1.0 | 1.0 | 1.0 | 1.0 | 8.0 | 4.0 | 2.0 | 1.0 | 12 | (1,19,25,35) | 7 | (1,3,13,50) | 5 | (1,1,13,35) |
| | | | | 16.0 | 8.0 | 4.0 | 2.0 | 14 | (1,13,17,50) | 8 | (1,3,23,55) | 6 | (1,1,23,35) |
| | | | | 1.0 | 1.0 | 1.0 | 1.0 | 10 | (1,13,15,45) | 6 | (1,1,27,40) | 5 | (1,1,11,27) |
| | | | | 2.0 | 2.0 | 2.0 | 2.0 | 12 | (1,15,29,40) | 7 | (1,3,17,40) | 5 | (1,1,19,27) |
| | | | | 2.0 | 1.0 | 1.0 | 1.0 | 10 | (1,11,17,17) | 6 | (1,1,13,90) | 5 | (1,1,7,45) |
| | | | | 4.0 | 2.0 | 2.0 | 2.0 | 12 | (1,15,23,55) | 7 | (1,9,13,19) | 5 | (1,3,13,13) |
| Intercepts and Slopes for Level-3 Intercept Parameter Equation: $\delta_{0000}, \delta_{0100}, \delta_{1000}, \delta_{1100}, \delta_{0001}, \delta_{0101}, \delta_{1001}, \delta_{1101}$ | | | | | | | | | | | | | |
| 0.5 | 1.0 | 1.0 | 1.0 | 8.0 | 4.0 | 2.0 | 1.0 | 11 | (1,12,23,55) | 7 | (1,11,11,13) | 5 | (1,1,9,40) |
| | | | | 16.0 | 8.0 | 4.0 | 2.0 | 13 | (1,17,35,45) | 8 | (1,7,19,23) | 6 | (1,7,7,13) |
| | | | | 1.0 | 1.0 | 1.0 | 1.0 | 9 | (1,7,13,70) | 6 | (1,1,23,35) | 4 | (1,1,13,17) |
| | | | | 2.0 | 2.0 | 2.0 | 2.0 | 11 | (1,11,23,50) | 7 | (1,1,27,55) | 5 | (1,7,7,7) |
| | | | | 2.0 | 1.0 | 1.0 | 1.0 | 10 | (1,13,19,29) | 6 | (1,1,25,35) | 4 | (1,1,11,21) |
| | | | | 4.0 | 2.0 | 2.0 | 2.0 | 11 | (1,15,19,50) | 7 | (1,1,21,80) | 5 | (1,1,15,25) |
| Intercepts and Slopes for Level-3 Slope Parameter Equations: $\delta_{0010}, \delta_{0110}, \delta_{1010}, \delta_{1110}, \delta_{0011}, \delta_{0111}, \delta_{1011}, \delta_{1111}$ | | | | | | | | | | | | | |
| 0.5 | 1.0 | 1.0 | 1.0 | 8.0 | 4.0 | 2.0 | 1.0 | 13 | (1,13,23,90) | 8 | (1,1,35,90) | 6 | (1,1,9,80) |
| | | | | 16.0 | 8.0 | 4.0 | 2.0 | 16 | (1,17,35,90) | 9 | (1,9,17,40) | 6 | (1,1,23,55) |
| | | | | 1.0 | 1.0 | 1.0 | 1.0 | 11 | (1,15,17,50) | 7 | (1,11,11,13) | 5 | (1,3,11,13) |
| | | | | 2.0 | 2.0 | 2.0 | 2.0 | 13 | (1,11,11,19) | 8 | (1,3,11,90) | 6 | (1,1,23,30) |
| | | | | 2.0 | 1.0 | 1.0 | 1.0 | 11 | (1,9,29,55) | 7 | (1,1,25,70) | 5 | (1,1,19,25) |
| | | | | 4.0 | 2.0 | 2.0 | 2.0 | 13 | (1,13,27,27) | 8 | (1,13,15,17) | 6 | (1,1,15,50) |
| Pure Intercepts: $\delta_{0000}, \delta_{1000}$ | | | | | | | | | | | | | |
| 1.0 | 0.5 | 0.5 | 0.5 | 8.0 | 4.0 | 2.0 | 1.0 | 11 | (1,9,17,80) | 7 | (1,1,35,40) | 5 | (1,1,11,27) |
| | | | | 16.0 | 8.0 | 4.0 | 2.0 | 13 | (1,29,29,29) | 8 | (1,1,50,55) | 5 | (1,1,11,50) |
| | | | | 1.0 | 1.0 | 1.0 | 1.0 | 9 | (1,5,23,45) | 5 | (1,1,23,27) | 4 | (1,1,3,50) |
| | | | | 2.0 | 2.0 | 2.0 | 2.0 | 11 | (1,9,19,60) | 6 | (1,7,13,13) | 4 | (1,1,15,17) |
| | | | | 2.0 | 1.0 | 1.0 | 1.0 | 9 | (1,9,11,60) | 6 | (1,1,7,100) | 4 | (1,1,13,13) |
| | | | | 4.0 | 2.0 | 2.0 | 2.0 | 11 | (1,13,13,70) | 7 | (1,1,17,80) | 5 | (1,1,17,17) |
| Lower Level Predictors: $\delta_{0100}, \delta_{0010}, \delta_{0001}, \delta_{1100}, \delta_{1010}, \delta_{1001}$ | | | | | | | | | | | | | |
| 1.0 | 0.5 | 0.5 | 0.5 | 8.0 | 4.0 | 2.0 | 1.0 | 13 | (1,11,13,19) | 8 | (1,1,35,80) | 5 | (1,1,17,35) |
| | | | | 16.0 | 8.0 | 4.0 | 2.0 | 15 | (1,11,17,29) | 9 | (1,1,55,100) | 6 | (1,9,11,11) |
| | | | | 1.0 | 1.0 | 1.0 | 1.0 | 11 | (1,5,23,90) | 6 | (1,1,35,35) | 5 | (1,1,13,23) |
| | | | | 2.0 | 2.0 | 2.0 | 2.0 | 12 | (1,19,27,40) | 7 | (1,5,19,25) | 5 | (1,3,13,13) |
| | | | | 2.0 | 1.0 | 1.0 | 1.0 | 11 | (1,19,25,25) | 7 | (1,1,35,40) | 5 | (1,7,7,7) |
| | | | | 4.0 | 2.0 | 2.0 | 2.0 | 13 | (1,7,21,23) | 8 | (1,11,13,19) | 5 | (1,1,23,25) |
| Higher Level Interactions: $\delta_{0110}, \delta_{0101}, \delta_{0011}, \delta_{1110}, \delta_{1101}, \delta_{1011}$ | | | | | | | | | | | | | |
| 1.0 | 0.5 | 0.5 | 0.5 | 8.0 | 4.0 | 2.0 | 1.0 | 15 | (1,17,23,25) | 9 | (1,9,23,27) | 6 | (1,7,13,13) |
| | | | | 16.0 | 8.0 | 4.0 | 2.0 | 18 | (1,17,23,50) | 11 | (1,5,40,55) | 7 | (1,3,25,29) |
| | | | | 1.0 | 1.0 | 1.0 | 1.0 | 12 | (1,15,25,55) | 8 | (1,1,35,70) | 5 | (1,1,15,40) |
| | | | | 2.0 | 2.0 | 2.0 | 2.0 | 9 | (1,19,27,80) | 9 | (3,11,11,13) | 6 | (1,1,29,35) |
| | | | | 2.0 | 1.0 | 1.0 | 1.0 | 13 | (1,19,25,50) | 8 | (1,1,35,80) | 6 | (1,3,13,17) |
| | | | | 4.0 | 2.0 | 2.0 | 2.0 | 15 | (1,11,17,23) | 9 | (1,15,19,19) | 6 | (1,1,23,50) |
| Large Interactions: $\delta_{0111}, \delta_{1111}$ | | | | | | | | | | | | | |
| 1.0 | 0.5 | 0.5 | 0.5 | 8.0 | 4.0 | 2.0 | 1.0 | 18 | (5,17,23,50) | 11 | (1,7,40,40) | 7 | (1,3,27,29) |
| | | | | 16.0 | 8.0 | 4.0 | 2.0 | 22 | (1,17,17,45) | 13 | (1,5,55,80) | 9 | (1,15,17,17) |
| | | | | 1.0 | 1.0 | 1.0 | 1.0 | 15 | (1,7,29,29) | 9 | (1,1,70,70) | 6 | (1,3,19,21) |
| | | | | 2.0 | 2.0 | 2.0 | 2.0 | 17 | (3,17,23,70) | 10 | (1,3,35,90) | 7 | (1,1,29,70) |
| | | | | 2.0 | 1.0 | 1.0 | 1.0 | 15 | (7,17,19,21) | 9 | (1,1,70,80) | 7 | (1,3,21,21) |
| | | | | 4.0 | 2.0 | 2.0 | 2.0 | 18 | (7,13,13,80) | 11 | (7,7,13,17) | 7 | (1,3,17,45) |

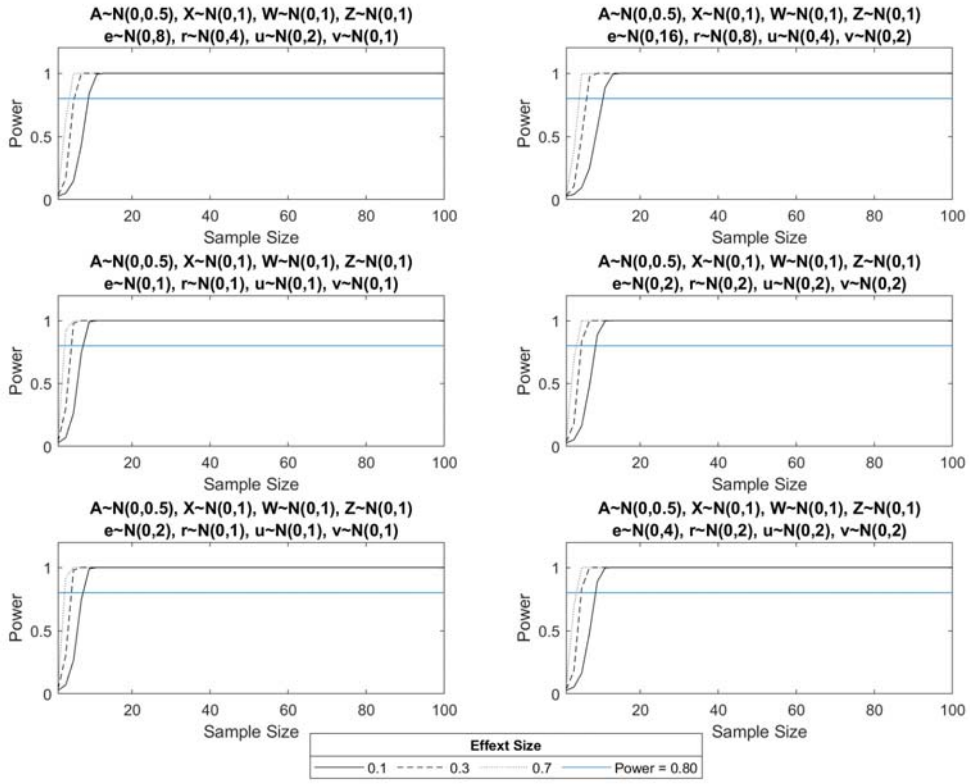


**Figure 23. Level-4 HLM power versus sample size plots for intercepts and slopes for Level-3 intercept parameter equations ($\delta_{0000}, \delta_{0100}, \delta_{1000}, \delta_{1100}, \delta_{0001}, \delta_{0101}, \delta_{1001}, \delta_{1101}$) with predictor variances $\sigma_A^2 = 0.5$ and $\sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 1.0$.**

$\hat{\delta} - \delta$ is the estimated effect size for the assumed values $0.1, 0.3,$ and $0.7$;

$z_{1-\alpha/2}$ is $z_{0.975}$ for the significance value $\alpha$ equal to 0.05. Based on the standard normal table, the z-score is 1.96;

$s.e.(\hat{\delta})$ are the derived diagonal elements of the $s.e.(\gamma)$ matrix for the parameter vector $[\delta_{0000},\delta_{0100},\delta_{1000},\delta_{1100},\delta_{0010},\delta_{0110},\delta_{1010},\delta_{1110},\delta_{0001},\delta_{0101},\delta_{1001},\delta_{1101},\delta_{0011},\delta_{0111},\delta_{1011},\delta_{1111}]$ as given in Equation 19.

For equal and varying sample sizes at Level-1, Level-2, Level-3 and Level-4, the power is computed for each sample set of the five conditions outlined in the Level-4 HLM simulation procedure (Table 11 and Figures 22 to 28). Based on the assumed predictor variance, the figures illustrate plot comparisons for Level-4 HLM intercepts $(\delta_{0000}, \delta_{0100}, \delta_{1000}, \delta_{1100}, \delta_{0010}, \delta_{0110}, \delta_{1010}, \delta_{1110})$ and slopes

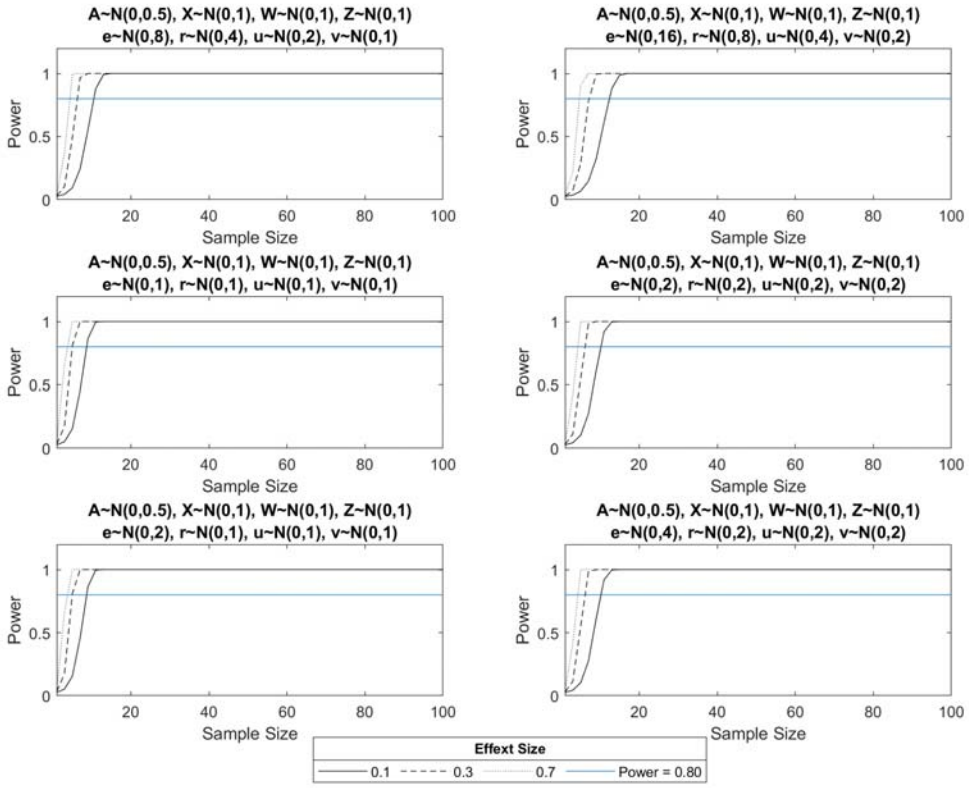


**Figure 24. Level-4 HLM power versus sample size plots for intercepts and slopes for Level-3 slope parameter equations ($\delta_{0010}, \delta_{0110}, \delta_{1010}, \delta_{1110}, \delta_{0011}, \delta_{0111}, \delta_{1011}, \delta_{1111}$) with predictor variances $\sigma_A^2 = 0.5$ and $\sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 1.0$.**

($\delta_{0001}, \delta_{0101}, \delta_{1001}, \delta_{1101}, \delta_{0011}, \delta_{0111}, \delta_{1011}, \delta_{1111}$) for $\sigma_A^2 = \sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 1.0$ (Figure 22), intercepts ($\delta_{1000}, \delta_{1100}, \delta_{1010}, \delta_{1110}$) and slopes ($\delta_{1001}, \delta_{1101}, \delta_{1011}, \delta_{1111}$) for Level-3 intercept parameter equations $\sigma_A^2 = 0.5$ and $\sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 1.0$ (Figure 23), intercepts ($\delta_{0000}, \delta_{0100}, \delta_{0010}, \delta_{0110}$) and slopes ($\delta_{0001}, \delta_{0101}, \delta_{0011}, \delta_{0111}$) for Level-3 slope parameter equations for $\sigma_A^2 = 0.5$ and $\sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 1.0$ (Figure 24), pure intercepts ($\delta_{0000}, \delta_{1000}$) for $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 0.5$) (Figure 25), lower level predictors ($\delta_{0100}, \delta_{0010}, \delta_{0001}, \delta_{1100}, \delta_{1010}, \delta_{1001}$) for $\sigma_A^2 = 1.0$, $\sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 0.5$) (Figure 26, higher level interactions ($\delta_{0110}$, $\delta_{0101}$, $\delta_{0011}$, $\delta_{1110}$, $\delta_{1101}$,$\delta_{1011}$) for $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 0.5$ (Figure 27), and large interactions ($\delta_{0111}, \delta_{1111}$) for $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 0.5$ (Figure 28). Again, these figures demonstrate sufficient power at decreasing sample sizes per level. Further the differences in power between low estimated

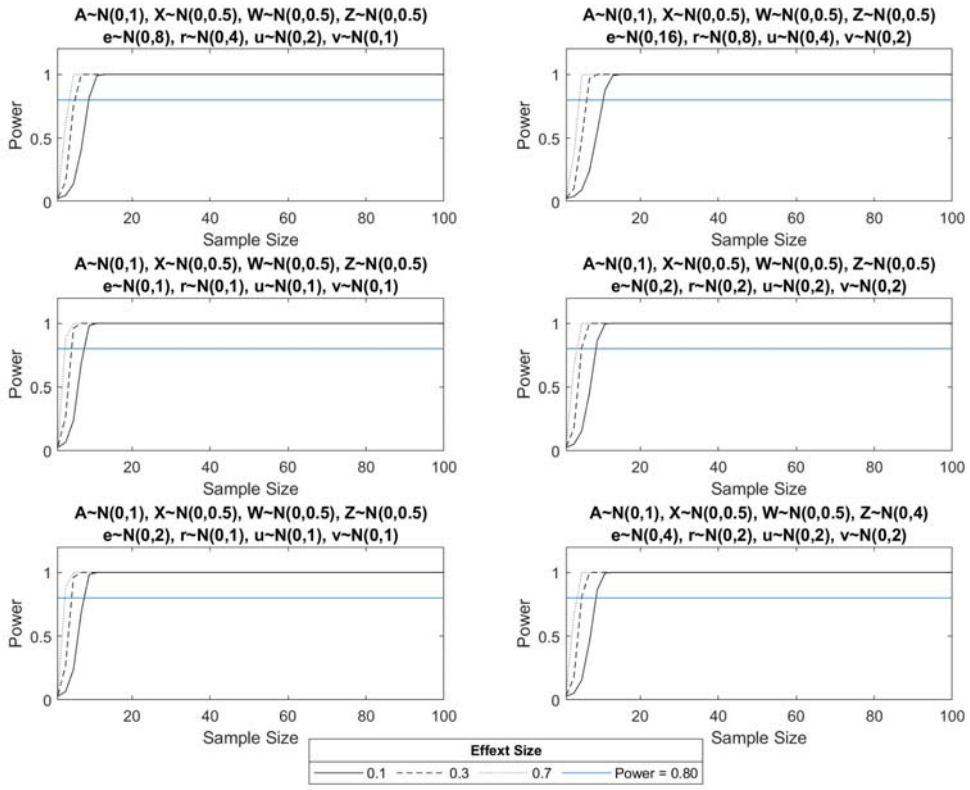


**Figure 25. Level-4 HLM power versus sample size plots for pure intercepts ($\delta_{0000}$,$\delta_{1000}$) with predictor variances $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 0.5$.**

effect size (0.1) and higher estimated effect sizes (0.3, 0.7) diminished as the number of levels increased.

The specific sample size recommendations to achieve at least 0.80 power for $n = g = h = f$ and the smallest sample size set $(n, g, h, f)$ for each predictor and error distribution are outlined in Table 13. The smallest sample size set refers to the set in which the smallest value for Level-1, Level-2, Level-3, or Level-4 is found that results in at least 80% power. That is, numbers within the $(n, g, h, f)$ set are interchangeable between levels and are conventionally listed smallest to largest. For comparison, this research associates the first number, n, with Level-1, the second number, g, with Level-2, the third number, h, with Level-3, and the fourth number, f, with Level-4.

Comparing previous Level-2 sufficient sample sizes at each level for a minimum power of 0.80 to Level-4 sufficient sample sizes has not been done in previous studies. This research

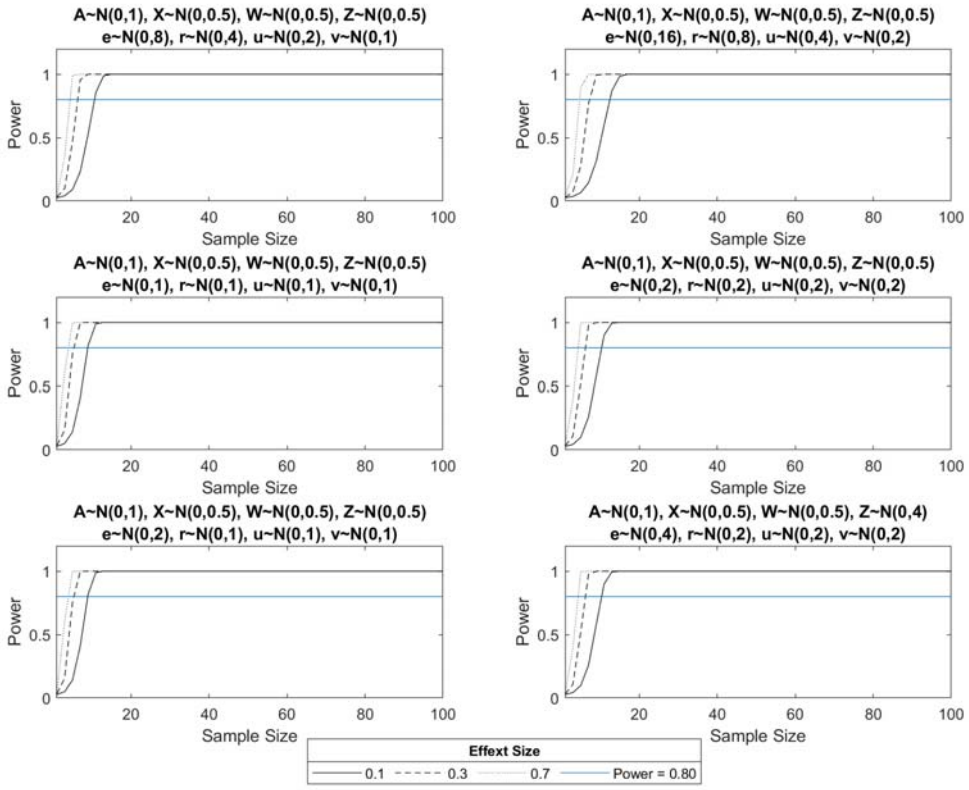


**Figure 26. Level-4 HLM power versus sample size plots for lower level predictors ($\delta_{0100}$,$\delta_{0010}, \delta_{0101}, \delta_{11000}, \delta_{1010}, \delta_{1001}$) with predictor variances $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 0.5$.**

extended the general rule of thumb of 30 samples at each level to the 3rd-level and 4th-level of a Level-4 HLM and in Table 13 provides the exact sample size requirements to achieve at least 0.80 power in parameter testing. For different estimated effect sizes this research found that when the predictor and error variance at Level-1, Level-2, Level-3, and Level-4 equals 1.0 ($\sigma_A^2 = \sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = \sigma_e^2 = \sigma_r^2 = \sigma_u^2 = \sigma_v^2 = 1.0$) the assumption of 30 samples at Level-1, Level-2, Level-3, and Level-4 to achieve a minimum power of 0.80 was an overestimate because the minimum number of samples at each level was found to be 10, 6, and 5 sample sizes per level for estimated effect size 0.1, 0.3, and 0.7, respectively, much fewer than the general rule (Table 13).

Similar to Level-2 and Level-3 HLM, for all Level-4 HLM predictor and error variance scenarios, as the estimated effect size (0.1, 0.3, 07) increased the number of samples for

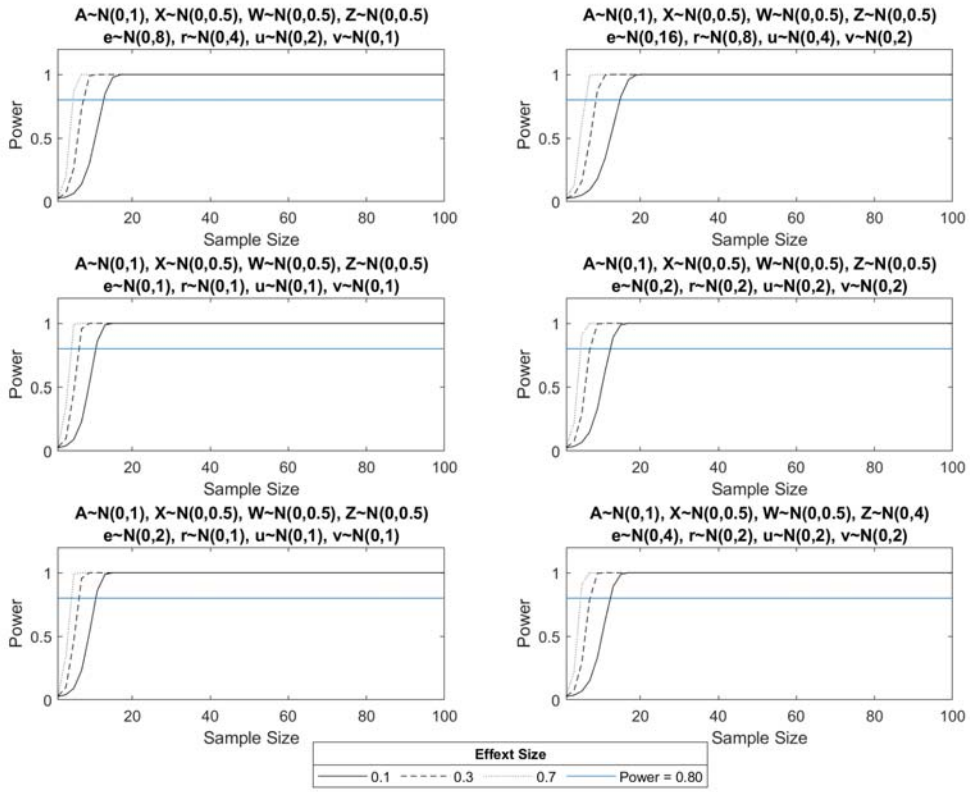


**Figure 27. Level-4 HLM power versus sample size plots for higher level interactions ($\delta_{0110}, \delta_{0101}, \delta_{0011}, \delta_{1110}, \delta_{1101}, \delta_{1011}$) with predictor variances $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 0.5$.**

each level to achieve a minimum power of 0.80 decreased. For example, in Table 13 and Figure 22, the Level-4 HLM intercepts ($\delta_{0000}, \delta_{0100}, \delta_{1100}, \delta_{0010}, \delta_{0110}, \delta_{1010}, \delta_{1110}$) and slopes ($\delta_{0001}, \delta_{0101}, \delta_{1001}, \delta_{1101}, \delta_{0011}, \delta_{0111}, \delta_{1011}, \delta_{1111}$) with predictor variances $\sigma_A^2 = \sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 1.0$, and error variances $\sigma_e^2 = 2$, $\sigma_r^2 = \sigma_u^2 = \sigma_v^2 = 1.0$ required 10, 6, and 5 samples at Level-1, Level-2, Level-3, and Level-4 when $n = g = h = f$ for estimated effect sizes 0.1, 0.3, and 0.7, respectively. In other words, estimated effect size 0.7 required 5 fewer samples per level than estimated effect size 0.1. Also, if the smallest set of $(n, g, h, f)$ is considered, then the associated sample size sets are (3,11,17,17), (1,1,13,90), and (1,1,7,45) at Level-1, Level-2, Level-3, and Level-4 for estimated effect sizes 0.1, 0.3, and 0.7, respectively. With unequal sample sizes, estimated effect size 0.7 requires fewer overall sample sizes than estimated effect size 0.1 to achieve a minimum power of 0.80.

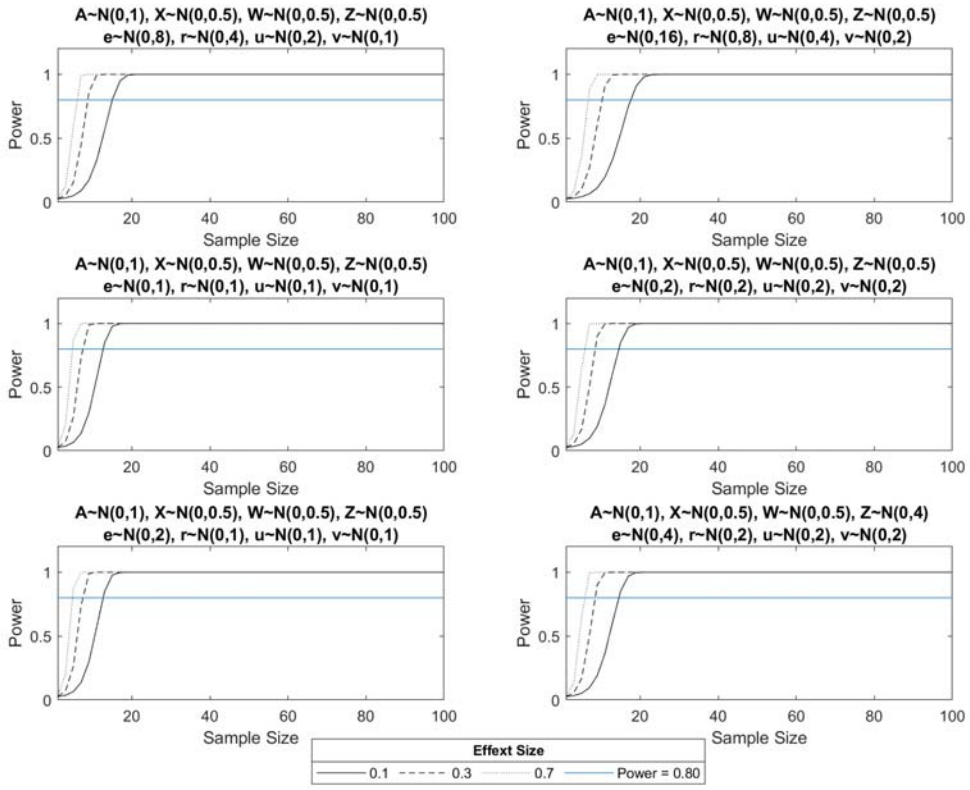


**Figure 28. Level-4 HLM power versus sample size plots for large interactions ($\delta_{0111}$,$\delta_{1111}$) with predictor variances $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 0.5$.**

That is $(n, g, h, f)$ requires an increase of 2 (for n), 10 (for g), 10 (for h), and 28 (for f). Notice once again, that the highest differences are in the higher levels by convention.

As the error variance values double (Table 10: Case 1 versus Case 2) for all Level-4 HLM predictor and error variance scenarios, the sample sizes needed per level increased to achieve a minimum power of 0.80. This is demonstrated in Figures 22 to 28 when comparing the left-hand side to the right-hand side. For example, for the Level-4 HLM large interactions $(\delta_{0111}, \delta_{1111})$ with predictor variances $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 0.5$, when the error variance increases from $\sigma_e^2 = 2.0$, $\sigma_r^2 = \sigma_u^2 = \sigma_v^2 = 1.0$ to $\sigma_e^2 = 4.0$, $\sigma_r^2 = \sigma_u^2 = \sigma_v^2 = 2.0$ the number of samples at Level-1, Level-2, Level-3, and Level-4 when $n = g = h = f$ requires 3, 2, and 0 more samples per a level for estimated effect sizes 0.1, 0.3, and 0.7, respectively, to achieve a minimum power of 0.80 (Table 5 and Figure 28).

As the error variance at Level-1, $\sigma_e^2$, increased, for all Level-4 HLM predictor variances

considered, the sample sizes required to achieve a minimum power of 0.80 stayed the same or increased by 1 sample size per a level for the estimated effect sizes considered (Table 10 and Figures 22 to 28). For example, consider the Level-4 HLM large interactions $(\delta_{0111}, \delta_{1111})$ with predictor variances $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 0.5$, and error variances $\sigma_r^2 = \sigma_u^2 = \sigma_v^2 = 1.0$. When the Level-1 error variance doubles from $\sigma_e^2 = 1.0$ to $\sigma_e^2 = 2.0$ the number of samples at Level-1, Level-2, Level-3, and Level-4 when $n = g = h = f$ required no sample size change per a level for estimated effect sizes 0.1, 0.3, and 0.7, respectively, to achieve minimum power of 0.80. Though, the smallest set $(n, g, h, f)$ requires a difference of (0,10,10,8), (0,0,0,10), and (0,0,2,0) for estimated effect sizes 0.1, 0.3, and 0.7, respectively. This implies that even though the number of sample sizes per a level vary, the sample sizes required per a level do not change due to rounding (Table 10 and Figure 28).

As the predictor variance at Level-1, $\sigma_A^2$, decreases from 1.0 to 0.5, the sample sizes required stay the same or minimally increases for all estimated effect sizes for the intercepts and slopes $(\delta_{0000}, \delta_{0100}, \delta_{0010}, \delta_{0110}, \delta_{0001}, \delta_{0101}, \delta_{0011}, \delta_{0111})$ of the Level-3 slope parameter equations and stays the same or minimally decreases for all estimated effect sizes for intercepts and slopes $(\delta_{1000}, \delta_{1100}, \delta_{1010}, \delta_{1110}, \delta_{1001}, \delta_{1101}, \delta_{1011}, \delta_{1111})$ of the Level-3 intercept equations (Table 10 and Figures 23 to 24). For example, for the Level-4 HLM intercepts and slopes with predictor variances $\sigma_A^2 = \sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 1.0$, and error variances $\sigma_e^2 = 1.0 = \sigma_r^2 = \sigma_u^2 = \sigma_v^2 = 1.0$, compared to Level-1 predictor variance $\sigma_A^2 = 0.5$ for the intercepts and slopes of the Level-3 slope parameter equations, the number of samples at Level-1, Level-2, and Level-3 for equal sample sizes $(n = g = h = f)$ required an increase of 1, 1, and 0 samples per level for estimated effect sizes 0.1, 0.3, and 0.7, respectively (Table 10, and Figure 22 and 24). Whereas, to achieve a minimum power of 0.80 when predictor variances $\sigma_A^2 = \sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 1.0$ and error variances $\sigma_e^2 = \sigma_r^2 = \sigma_u^2 = \sigma_v^2 = 1.0$ compared to Level-1 predictor variance $\sigma_A^2 = 0.5$ for the intercepts and slopes of the Level-3 intercept parameter equations, the number of required samples at Level-1, Level-2, Level-3, and Level-4 for equal sample sizes $(n = g = h = f)$

requires 1, 0, 1 fewer sample sizes per level effect 0.1, 0.3, and 0.7, respectively (Table 10, and Figure 22 and 23).

As the predictor variance at Level-2, Level-3, and Level-4, $X_{ijkl}$, $W_{ijkl}$ and $Z_{ijkl}$, decreased from 1.0 to 0.5, the sample sizes required per level generally stayed the same or increased for all estimated effect sizes for large lower level predictors ($\delta_{0100}, \delta_{0010}, \delta_{0001}, \delta_{1100}, \delta_{1010}, \delta_{1001}$), higher level interactions ($\delta_{0110}$, $\delta_{0101}$, $\delta_{0011}$, $\delta_{1110}$, $\delta_{1101}$,$\delta_{1011}$), and large interactions ($\delta_{0111}, \delta_{1111}$) (Table 10 and Figures 26 to 28) and stayed the same or decreased for pure intercepts ($\delta_{0000}, \delta_{1000}$). For example, for the Level-4 HLM intercepts and slopes with predictor variances $\sigma_A^2 = \sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 1.0$ and error variances $\sigma_e^2 = \sigma_r^2 = \sigma_u^2 = \sigma_v^2 = 1.0$, compared to large interactions with predictor variances $\sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 0.5$, the number of samples at Level-1, Level-2, Level-3, and Level-4 when $n = g = h = f$ required 5, 3, and 1 more samples per a level for effects sizes 0.1, 0.3, and 0.7, respectively (Table 10 and Figures 22 to 28). Whereas, when the same scenario was compared to pure intercepts with predictor variances $\sigma_X^2 = \sigma_W^2 = \sigma_Z^2 = 0.5$, the number of samples at Level-1, Level-2, Level-3, and Level-4 when $n = g = h = f$ required 1, 1, and 1 fewer samples per a level for effects sizes 0.1, 0.3, and 0.7, respectively (Table 10 and Figures 22 to 28).

In general, Level-4 HLM sample size criteria assumptions are similar to Level-2 and Level-3 conclusions. For a Level-4 HLM to achieve sufficient power of 0.80 for different estimated effect sizes this research found that:

- The general rule of thumb was an over estimate for the Level-4 HLM sample size requirements. 30 samples at Level-1 and Level-2 did not extend to Level-4. Low estimated effect sizes (e.g., 0.1) required 10 sample sizes at each level and higher estimated effect sizes (0.3 and 0.7), required 6 and 5 sample sizes at each level, respectively.

- As the estimated effect size (0.1, 0.3, 07) increased for all Level-4 parameters ($\delta_{0000}$,$\delta_{0100}$,$\delta_{1000}$,$\delta_{1100}$,$\delta_{0010}$,$\delta_{0110}$,$\delta_{1010}$,$\delta_{1110}$,$\delta_{0001}$,$\delta_{0101}$,$\delta_{1001}$,$\delta_{1101}$,$\delta_{0011}$,$\delta_{0111}$,$\delta_{1011}$,$\delta_{1111}$)

the number of samples required per level decreased.

- When error variance ($\sigma_e^2, \sigma_r^2, \sigma_u^2, \sigma_v^2$) values double (Figures 22 to 28 right-hand side compared to left-hand-side) for all Level-4 parameters the sample sizes needed per level increased.

- When the error variance at Level-1, $\sigma_e^2$, increased, the sample sizes required do not change for all estimated effect sizes.

- As the predictor variance at Level-1, $\sigma_A^2$, decreases from 1.0 to 0.5, the sample sizes required generally did not change or minimally increases for intercepts and slopes of the Level-3 slope parameter equations, and did not change or minimally decreased for intercepts and slopes of the Level-3 intercept parameter equations.

- When the predictor variances at Level-2, Level-3, and Level-4, $\sigma_X^2$, $\sigma_W^2$, and $\sigma_Z^2$, decreases from 1.0 to 0.5, the sample sizes required per level generally increases for lower level predictors, higher level predictors, and large interactions, while minimally decreasing for pure intercepts.

For this Level-4 HLM simulation, all sample size tables for every combinations within the simulation is provided in Appendix B.4.

**Summary.**

The associated level error variances were chosen based on realistic operational distributions where the variability of individuals at Level-1 is greater than or equal to the variability of groups, units, and organizations at higher levels (Level-2, Level-3, and Level-4, respectively). The error variance assumptions and variance terms were chosen similar to literature of Level-2 HLM analysis such that the ICC values were generally moderate and largest at the lowest level. In general, for the five simulation scenarios outlined for the Level-2, Level-3, and Level-4 HLMs, this research found the increases and decreases in sample sizes required per level of Level-2, Level-3 and Level-4 to be similar to achieve a minimum power of 0.80.

For the Level-2 general rule of thumb, 30 sample sizes per Level-1 and Level-2 to achieve sufficient power was not met for estimated effect size 0.1, but for higher estimated effect sizes (0.3 and 0.7) when 30 sample sizes per level was considered, the minimum samples required at each level was almost half (17 sample sizes per level). When the rule of thumb was extended to Level-3 and Level-4 the samples per level to achieve minimum sufficient power of 0.80 was an overestimate for all estimated effect sizes considered (0.1, 0.3, and 0.7). Therefore, for the scenarios considered, the general rule of thumb is an overestimate for the larger estimated effect sizes considered (0.3 and 0.7) and should not be extended to higher levels of HLM analysis.

As the estimated effect sizes increased, from 0.1 to 0.7, for all predictor and error variance scenarios considered, the number of sample sizes required per each level decreased to achieve minimum power of 0.80 for the Level-2, Level-3, and Level-4 HLMs. When error variances for all levels of the Level-2, Level-3 and Level-4 HLMs were doubled, the sample sizes needed per level to achieve minimum power of 0.80 increased. Previous literature did not increase the error variance terms, rather for Level-2 HLM analysis, literature kept Level-1 error variance consistent, $\sigma_e^2 = 1.0$ and changed $\sigma_r^2$ based on the assumed ICC values. As stated previously, this research used the error variance information rather than the ICC values because information about the ICC values would not be known, but information about the error variances for each level could be.

When the error variance at Level-1, $\sigma_e^2$, increased, the sample sizes required to achieve minimum power of 0.80 in general increased. Therefore, if the only difference between two organizations is the individual or analyst (e.g., Level-1), then a novice analysts' contributions to the organization (Level-4) can impact power and sample sizes needed to achieve a minimim power of 0.80.

Similarly, if the predictor variance at Level-1, $\sigma_A^2$, decreases from 1.0 to 0.5, the sample sizes required per level to achieve a minimum power of 0.80 did not change or minimally increased for the previous level slope parameter equations (i.e., for Level-4 HLM analysis, the Level-3 slope parameter equations) and did not change or minimally decreased for the

previous level intercept parameter equations (i.e., for Level-4 HLM analysis, the Level-3 intercept parameter equations). That is as the variability of the work or tasking distribution decreased at Level-1, the samples required to assess the HLM increased for slope parameters and decreased for intercept parameters. As the predictor variances decreases from 1.0 to 0.5 for higher levels, $\sigma^2_X, \sigma^2_W, \sigma^2_Z$, the sample sizes required per level to achieve a minimum power of 0.80 depended on the parameters of interest. As the variability of the work or tasking distributions decreased for Level-2, Level-3, and Level-4 HLMs the number of sample sizes required per level was important when sample sizes are an issue.

Thus, the number of sample sizes required to achieve minimum power of 0.80 changes based estimated effect size, and predictor and error variability assumption. If the number of required sample sizes per level increased, this might not always be achievable due to population limitations, cost, and analyst accessability. Therefore, sample size re-sampling techniques are considered to achieve minimum sufficient power of 0.80 in Research Objective 2 for such cases.

# IV. Research Objective 2: Re-Sampling Small Sample Size Based Method

## 4.1 Re-Sampling Hierarchical Linear Model (HLM) Recommendations for the Effects on Parameter Estimation with Insufficient Power in Level-2 and Level-3 HLM

To achieve the goal of Research Objective 2, the power results and procedures of Research Objective 1 for Level-2 and Level-3 HLMs are applied to operationally realistic small sample size combinations for estimation and detailed in Table 14. The small sample size combinations considered reflect achievable samples per each level based on cost and prior access to small operational populations. However, these sample sizes generally did not achieve sufficient power for specific scenarios even for high effect sizes. Using the combined Level-2 and Level-3 HLM measurement models specified in Chapter 2, and the five simulation conditions outlined in Chapter 3, these associated parameters of the HLM measurement models that did not achieve a minimum power of 80% were re-sampled to larger sample sizes. For a Level-2 HLM, the extended sample sizes considered at both Level-1 and Level-2 were 30, 50, 100, 200, and 500. For a Level-3 HLM, the extended sample sizes considered at both Level-1, Level-2, and Level-3 were 30, 50, 100 and 200 (for effect size 0.3 and 0.7 only). Assessment and re-sampling method recommendations are provided for the effects on parameter estimation, parameter bias, and power in the subsection Re-Sampling HLM Recommendations.

In general, the re-sampling procedure proceeded as follows. For each sample size considered in Table 14 that did not meet minimum sufficient power of 0.80, a random draw was generated for each scenario as given in Chapter III (i.e., $\sigma_A^2 = \sigma_X^2 = \sigma_e^2 = \sigma_r^2 = 1.0$ is a scenario). These observed data for the random draw were used to estimate predictor $(A_{ijk}, X_{ijk}, W_{ijkl})$ and error $(e_{ijk}, r_{ijkl}, u_{ijk})$ distributions. Then from these estimated distributions, samples of size 30, 50, 100, and 200 were drawn and REML used to estimate the HLM. This process was repeated 1,000 times and the accuracy of the parameter

estimated as well as power to detect if the estimates significantly differ from zero was calculated across the 1,000 replicates. Specific details are provided in subsequent sections for the Level-2 and Level-3 HLM.

**Table 14. Level-2 and Level-3 HLM small sample size combinations considered by level for larger sample size re-sampling**

| | HLM Level | | |
|---|---|---|---|
| | Level-1 | Level-2 | Level-3 |
| Level-2 | 10 | 5 | |
| | 15 | 5 | |
| | 20 | 5 | |
| | 15 | 10 | |
| | 20 | 10 | |
| | 25 | 10 | |
| | 20 | 15 | |
| | 25 | 15 | |
| Level-3 | 10 | 5 | 3 |
| | 15 | 5 | 3 |
| | 20 | 5 | 3 |
| | 15 | 10 | 5 |
| | 20 | 10 | 5 |
| | 25 | 10 | 5 |
| | 20 | 15 | 5 |
| | 25 | 15 | 10 |

### Parameter Accuracy.

Parameter accuracy is determined using bias. If a parameter has zero bias, then it is called unbiased and there is no difference between the parameter's expected value ($\hat{\mu}$) and the true value being estimated ($\mu$). The expected bias of a parameter decreases with larger sample sizes. The accuracy of the parameter estimates is indicated by the absolute relative bias. Since $\hat{\mu}$ is the estimate of the population parameter $\mu$, the absolute relative bias is

$$\left|\frac{\hat{\mu} - \mu}{\mu}\right|. \tag{31}$$

That is, the absolute relative bias for the Level-2 parameters is

$$\left| \frac{\hat{\beta}_{ij} - \beta_{ij}}{\beta_{ij}} \right|, \tag{32}$$

and the absolute relative bias for the Level-3 parameters is

$$\left| \frac{\hat{\gamma}_{ijk} - \gamma_{ijk}}{\gamma_{ijk}} \right|. \tag{33}$$

**Simulation Run Time.**

Recall to examine the effects of re-sampling on parameter estimation and model specification for each of the HLM levels considered (Level-2 and Level-3), 1000 Monte Carlo simulation were conducted using the multilevel Matlab toolbox, linear mixed-effects model (lme), to estimate the parameters and generate the simulated data [29]. The coefficients were estimated using the Maximum Likelihood function REML within Matlab.

The computation time to complete each iteration exponentially increased by level and re-sampled sample sizes considered as shown in Table 15. For example, to re-sample each level of a Level-2 HLM small sample combinations to a sample size of 30 ($N = 30$ individuals x 30 groups = 900) takes 56,000 seconds to complete 1,000 Monte Carlo iterations across all scenarios for each small sample size combination that did not have a minimum sufficient power of 0.80. Whereas, to re-sample each level of a Level-3 HLM small sample combinations to a sample size of 30 ($N = 30$ individuals x 30 groups x 30 units = 27,000) takes 672,000 seconds to complete 1,000 Monte Carlo iterations across all scenarios for each small sample size combination that did not have a minimum sufficient power of 0.80.

**Table 15. Small sub sample re-sampled to larger sample sizes run times by level in seconds (sec).**

| Level | Re-Sampled Sizes per level | Run Time sec | Number of Runs | Total Time (sec) x Number of Monte Carlo runs |
|---|---|---|---|---|
| Level-2 | 30 | 0.25 | 224 | 56,000 |
| | 50 | 0.50 | 224 | 112,000 |
| | 100 | 0.50 | 224 | 112,000 |
| | 200 | 30.00 | 224 | 6,720,000 |
| | 500 | 180.00 | 224 | 40,320,000 |
| Level-3 | 30 | 3.00 | 236 | 672,000 |
| | 50 | 5.00 | 236 | 1,180,000 |
| | 100 | 30.00 | 236 | 7,080,000 |
| | 200 | 228.00 | 92 | 20,976,000 |
| | 500 | 3,342 | 92 | 307,464,000 |
| Level-4 | 30 | 1,150 | 200 | 230,000 |
| | 50 | 1,800 | 200 | 360,000 |
| | 100 | N/A | 1 | run did not compile |

### Level-2 Re-Sample Based HLM Recommendations.

For the Level-2 HLM the scenario conditions considered were: small sample sizes at each level (8 total as shown in Figure 14), effect size (0.1, 0.3, 0.7), Level-1 initial variance ($\sigma_e^2 = 1.0, 2.0$), error term distributions by level (2 cases as shown in Table 2), and predictor distributions by level (3 cases as shown in Table 3). Of the 8 x 3 x 2 x 2 x 3 = 288 scenarios considered, 224 scenarios did not reach a minimum power of 0.80 from the previous chapter results (Appendix B.1). Thus, these 224 scenarios were extended to the larger sample sizes 30, 50, 100, 200, and 500 for each level as described. The specific conditions are listed in Table 16. As previously described for each scenario, 1000 Monte Carlo simulations were performed and the associated average power (Tables 17 to 19 and Figure 29 to 32) and average relative bias (Tables 20 to 22 and Figure 33 to 36) were reported.

**Table 16. Level-2 small sample sizes by level that did not have a minimum power of 0.80.**

| | Sample Size By Level | | | Predictor Distributions | | Error Variance Distributions | |
|---|---|---|---|---|---|---|---|
| | Level-1 n | Level-2 g | Effect Size | Level-1 $N(0,\sigma_A^2)$ $\sigma_A^2$ | Level-2 $N(0,\sigma_X^2)$ $\sigma_X^2$ | Level-1 $N(0,\sigma_e^2)$ $\sigma_e^2$ | Level-2 $N(0,\sigma_r^2)$ $\sigma_r^2$ |
| 1 | 10 | 5 | 0.1 | 1 | 1 | 2 | 1 |
| 2 | 15 | 5 | 0.1 | 1 | 1 | 2 | 1 |
| 3 | 15 | 10 | 0.1 | 1 | 1 | 2 | 1 |
| 4 | 20 | 5 | 0.1 | 1 | 1 | 2 | 1 |
| 5 | 20 | 10 | 0.1 | 1 | 1 | 2 | 1 |
| 6 | 20 | 15 | 0.1 | 1 | 1 | 2 | 1 |
| 7 | 25 | 10 | 0.1 | 1 | 1 | 2 | 1 |
| 8 | 25 | 15 | 0.1 | 1 | 1 | 2 | 1 |
| 9 | 10 | 5 | 0.1 | 1 | 1 | 4 | 2 |
| 10 | 15 | 5 | 0.1 | 1 | 1 | 4 | 2 |
| 11 | 15 | 10 | 0.1 | 1 | 1 | 4 | 2 |
| 12 | 20 | 5 | 0.1 | 1 | 1 | 4 | 2 |
| 13 | 20 | 10 | 0.1 | 1 | 1 | 4 | 2 |
| 14 | 20 | 15 | 0.1 | 1 | 1 | 4 | 2 |
| 15 | 25 | 10 | 0.1 | 1 | 1 | 4 | 2 |
| 16 | 25 | 15 | 0.1 | 1 | 1 | 4 | 2 |
| 17 | 10 | 5 | 0.3 | 1 | 1 | 2 | 1 |
| 18 | 15 | 5 | 0.3 | 1 | 1 | 2 | 1 |
| 19 | 15 | 10 | 0.3 | 1 | 1 | 2 | 1 |
| 20 | 20 | 5 | 0.3 | 1 | 1 | 2 | 1 |
| 21 | 20 | 10 | 0.3 | 1 | 1 | 2 | 1 |
| 22 | 20 | 15 | 0.3 | 1 | 1 | 2 | 1 |
| 23 | 25 | 10 | 0.3 | 1 | 1 | 2 | 1 |
| 24 | 10 | 5 | 0.3 | 1 | 1 | 4 | 2 |
| 25 | 15 | 5 | 0.3 | 1 | 1 | 4 | 2 |
| 26 | 15 | 10 | 0.3 | 1 | 1 | 4 | 2 |
| 27 | 20 | 5 | 0.3 | 1 | 1 | 4 | 2 |
| 28 | 20 | 10 | 0.3 | 1 | 1 | 4 | 2 |
| 29 | 20 | 15 | 0.3 | 1 | 1 | 4 | 2 |
| 30 | 25 | 10 | 0.3 | 1 | 1 | 4 | 2 |
| 31 | 25 | 15 | 0.3 | 1 | 1 | 4 | 2 |
| 32 | 10 | 5 | 0.7 | 1 | 1 | 2 | 1 |
| 33 | 10 | 5 | 0.7 | 1 | 1 | 4 | 2 |
| 34 | 15 | 5 | 0.7 | 1 | 1 | 4 | 2 |
| 35 | 20 | 5 | 0.7 | 1 | 1 | 4 | 2 |
| 36 | 10 | 5 | 0.1 | 1 | 1 | 1 | 1 |
| 37 | 15 | 5 | 0.1 | 1 | 1 | 1 | 1 |
| 38 | 15 | 10 | 0.1 | 1 | 1 | 1 | 1 |
| 39 | 20 | 5 | 0.1 | 1 | 1 | 1 | 1 |
| 40 | 20 | 10 | 0.1 | 1 | 1 | 1 | 1 |
| 41 | 20 | 15 | 0.1 | 1 | 1 | 1 | 1 |
| 42 | 25 | 10 | 0.1 | 1 | 1 | 1 | 1 |
| 43 | 25 | 15 | 0.1 | 1 | 1 | 1 | 1 |
| 44 | 10 | 5 | 0.1 | 1 | 1 | 2 | 2 |
| 45 | 15 | 5 | 0.1 | 1 | 1 | 2 | 2 |
| 46 | 15 | 10 | 0.1 | 1 | 1 | 2 | 2 |
| 47 | 20 | 5 | 0.1 | 1 | 1 | 2 | 2 |
| 48 | 20 | 10 | 0.1 | 1 | 1 | 2 | 2 |
| 49 | 20 | 15 | 0.1 | 1 | 1 | 2 | 2 |
| 50 | 25 | 10 | 0.1 | 1 | 1 | 2 | 2 |
| 51 | 25 | 15 | 0.1 | 1 | 1 | 2 | 2 |
| 52 | 10 | 5 | 0.3 | 1 | 1 | 1 | 1 |
| 53 | 15 | 5 | 0.3 | 1 | 1 | 1 | 1 |
| 54 | 15 | 10 | 0.3 | 1 | 1 | 1 | 1 |
| 55 | 20 | 5 | 0.3 | 1 | 1 | 1 | 1 |
| 56 | 20 | 10 | 0.3 | 1 | 1 | 1 | 1 |
| 57 | 25 | 10 | 0.3 | 1 | 1 | 1 | 1 |
| 58 | 10 | 5 | 0.3 | 1 | 1 | 2 | 2 |
| 59 | 15 | 5 | 0.3 | 1 | 1 | 2 | 2 |
| 60 | 15 | 10 | 0.3 | 1 | 1 | 2 | 2 |
| 61 | 20 | 5 | 0.3 | 1 | 1 | 2 | 2 |
| 62 | 20 | 10 | 0.3 | 1 | 1 | 2 | 2 |
| 63 | 20 | 15 | 0.3 | 1 | 1 | 2 | 2 |
| 64 | 25 | 10 | 0.3 | 1 | 1 | 2 | 2 |
| 65 | 25 | 15 | 0.3 | 1 | 1 | 2 | 2 |
| 66 | 10 | 5 | 0.7 | 1 | 1 | 2 | 2 |
| 67 | 15 | 5 | 0.7 | 1 | 1 | 2 | 2 |
| 68 | 10 | 5 | 0.1 | 0.5 | 1 | 2 | 1 |
| 69 | 15 | 5 | 0.1 | 0.5 | 1 | 2 | 1 |
| 70 | 15 | 10 | 0.1 | 0.5 | 1 | 2 | 1 |
| 71 | 20 | 5 | 0.1 | 0.5 | 1 | 2 | 1 |
| 72 | 20 | 10 | 0.1 | 0.5 | 1 | 2 | 1 |
| 73 | 20 | 15 | 0.1 | 0.5 | 1 | 2 | 1 |
| 74 | 25 | 10 | 0.1 | 0.5 | 1 | 2 | 1 |
| 75 | 25 | 15 | 0.1 | 0.5 | 1 | 2 | 1 |

| | Sample Size By Level | | | Predictor Distributions | | Error Variance Distributions | |
|---|---|---|---|---|---|---|---|
| | Level-1 n | Level-2 g | Effect Size | Level-1 $N(0,\sigma_A^2)$ $\sigma_A^2$ | Level-2 $N(0,\sigma_X^2)$ $\sigma_X^2$ | Level-1 $N(0,\sigma_e^2)$ $\sigma_e^2$ | Level-2 $N(0,\sigma_r^2)$ $\sigma_r^2$ |
| 76 | 10 | 5 | 0.1 | 0.5 | 1 | 4 | 2 |
| 77 | 15 | 5 | 0.1 | 0.5 | 1 | 4 | 2 |
| 78 | 15 | 10 | 0.1 | 0.5 | 1 | 4 | 2 |
| 79 | 20 | 5 | 0.1 | 0.5 | 1 | 4 | 2 |
| 80 | 20 | 10 | 0.1 | 0.5 | 1 | 4 | 2 |
| 81 | 20 | 15 | 0.1 | 0.5 | 1 | 4 | 2 |
| 82 | 25 | 10 | 0.1 | 0.5 | 1 | 4 | 2 |
| 83 | 25 | 15 | 0.1 | 0.5 | 1 | 4 | 2 |
| 84 | 10 | 5 | 0.3 | 0.5 | 1 | 2 | 1 |
| 85 | 15 | 5 | 0.3 | 0.5 | 1 | 2 | 1 |
| 86 | 15 | 10 | 0.3 | 0.5 | 1 | 2 | 1 |
| 87 | 20 | 5 | 0.3 | 0.5 | 1 | 2 | 1 |
| 88 | 20 | 10 | 0.3 | 0.5 | 1 | 2 | 1 |
| 89 | 20 | 15 | 0.3 | 0.5 | 1 | 2 | 1 |
| 90 | 25 | 10 | 0.3 | 0.5 | 1 | 2 | 1 |
| 91 | 25 | 15 | 0.3 | 0.5 | 1 | 2 | 1 |
| 92 | 10 | 5 | 0.3 | 0.5 | 1 | 4 | 2 |
| 93 | 15 | 5 | 0.3 | 0.5 | 1 | 4 | 2 |
| 94 | 15 | 10 | 0.3 | 0.5 | 1 | 4 | 2 |
| 95 | 20 | 5 | 0.3 | 0.5 | 1 | 4 | 2 |
| 96 | 20 | 10 | 0.3 | 0.5 | 1 | 4 | 2 |
| 97 | 20 | 15 | 0.3 | 0.5 | 1 | 4 | 2 |
| 98 | 25 | 10 | 0.3 | 0.5 | 1 | 4 | 2 |
| 99 | 25 | 15 | 0.3 | 0.5 | 1 | 4 | 2 |
| 100 | 10 | 5 | 0.7 | 0.5 | 1 | 2 | 1 |
| 101 | 15 | 5 | 0.7 | 0.5 | 1 | 2 | 1 |
| 102 | 20 | 5 | 0.7 | 0.5 | 1 | 2 | 1 |
| 103 | 10 | 5 | 0.7 | 0.5 | 1 | 4 | 2 |
| 104 | 15 | 5 | 0.7 | 0.5 | 1 | 4 | 2 |
| 105 | 15 | 10 | 0.7 | 0.5 | 1 | 4 | 2 |
| 106 | 20 | 5 | 0.7 | 0.5 | 1 | 4 | 2 |
| 107 | 20 | 10 | 0.7 | 0.5 | 1 | 4 | 2 |
| 108 | 10 | 5 | 0.1 | 0.5 | 1 | 1 | 1 |
| 109 | 15 | 5 | 0.1 | 0.5 | 1 | 1 | 1 |
| 110 | 15 | 10 | 0.1 | 0.5 | 1 | 1 | 1 |
| 111 | 20 | 5 | 0.1 | 0.5 | 1 | 1 | 1 |
| 112 | 20 | 10 | 0.1 | 0.5 | 1 | 1 | 1 |
| 113 | 20 | 15 | 0.1 | 0.5 | 1 | 1 | 1 |
| 114 | 25 | 10 | 0.1 | 0.5 | 1 | 1 | 1 |
| 115 | 25 | 15 | 0.1 | 0.5 | 1 | 1 | 1 |
| 116 | 10 | 5 | 0.1 | 0.5 | 1 | 2 | 2 |
| 117 | 15 | 5 | 0.1 | 0.5 | 1 | 2 | 2 |
| 118 | 15 | 10 | 0.1 | 0.5 | 1 | 2 | 2 |
| 119 | 20 | 5 | 0.1 | 0.5 | 1 | 2 | 2 |
| 120 | 20 | 10 | 0.1 | 0.5 | 1 | 2 | 2 |
| 121 | 20 | 15 | 0.1 | 0.5 | 1 | 2 | 2 |
| 122 | 25 | 10 | 0.1 | 0.5 | 1 | 2 | 2 |
| 123 | 25 | 15 | 0.1 | 0.5 | 1 | 2 | 2 |
| 124 | 10 | 5 | 0.3 | 0.5 | 1 | 1 | 1 |
| 125 | 15 | 5 | 0.3 | 0.5 | 1 | 1 | 1 |
| 126 | 15 | 10 | 0.3 | 0.5 | 1 | 1 | 1 |
| 127 | 20 | 5 | 0.3 | 0.5 | 1 | 1 | 1 |
| 128 | 20 | 10 | 0.3 | 0.5 | 1 | 1 | 1 |
| 129 | 20 | 15 | 0.3 | 0.5 | 1 | 1 | 1 |
| 130 | 25 | 10 | 0.3 | 0.5 | 1 | 1 | 1 |
| 131 | 25 | 15 | 0.3 | 0.5 | 1 | 1 | 1 |
| 132 | 10 | 5 | 0.3 | 0.5 | 1 | 2 | 2 |
| 133 | 15 | 5 | 0.3 | 0.5 | 1 | 2 | 2 |
| 134 | 15 | 10 | 0.3 | 0.5 | 1 | 2 | 2 |
| 135 | 20 | 5 | 0.3 | 0.5 | 1 | 2 | 2 |
| 136 | 20 | 10 | 0.3 | 0.5 | 1 | 2 | 2 |
| 137 | 20 | 15 | 0.3 | 0.5 | 1 | 2 | 2 |
| 138 | 25 | 10 | 0.3 | 0.5 | 1 | 2 | 2 |
| 139 | 25 | 15 | 0.3 | 0.5 | 1 | 2 | 2 |
| 140 | 10 | 5 | 0.7 | 0.5 | 1 | 1 | 1 |
| 141 | 15 | 5 | 0.7 | 0.5 | 1 | 1 | 1 |
| 142 | 10 | 5 | 0.7 | 0.5 | 1 | 2 | 2 |
| 143 | 15 | 5 | 0.7 | 0.5 | 1 | 2 | 2 |
| 144 | 15 | 10 | 0.7 | 0.5 | 1 | 2 | 2 |
| 145 | 20 | 5 | 0.7 | 0.5 | 1 | 2 | 2 |
| 146 | 10 | 5 | 0.1 | 1 | 0.5 | 2 | 1 |
| 147 | 15 | 5 | 0.1 | 1 | 0.5 | 2 | 1 |
| 148 | 15 | 10 | 0.1 | 1 | 0.5 | 2 | 1 |
| 149 | 20 | 5 | 0.1 | 1 | 0.5 | 2 | 1 |
| 150 | 20 | 10 | 0.1 | 1 | 0.5 | 2 | 1 |

| | Sample Size By Level | | | Predictor Distributions | | Error Variance Distributions | |
|---|---|---|---|---|---|---|---|
| | Level-1 n | Level-2 g | Effect Size | Level-1 $N(0,\sigma_A^2)$ $\sigma_A^2$ | Level-2 $N(0,\sigma_X^2)$ $\sigma_X^2$ | Level-1 $N(0,\sigma_e^2)$ $\sigma_e^2$ | Level-2 $N(0,\sigma_r^2)$ $\sigma_r^2$ |
| 151 | 20 | 15 | 0.1 | 1 | 0.5 | 2 | 1 |
| 152 | 25 | 10 | 0.1 | 1 | 0.5 | 2 | 1 |
| 153 | 25 | 15 | 0.1 | 1 | 0.5 | 2 | 1 |
| 154 | 10 | 5 | 0.1 | 1 | 0.5 | 4 | 2 |
| 155 | 15 | 5 | 0.1 | 1 | 0.5 | 4 | 2 |
| 156 | 15 | 10 | 0.1 | 1 | 0.5 | 4 | 2 |
| 157 | 20 | 5 | 0.1 | 1 | 0.5 | 4 | 2 |
| 158 | 20 | 10 | 0.1 | 1 | 0.5 | 4 | 2 |
| 159 | 20 | 15 | 0.1 | 1 | 0.5 | 4 | 2 |
| 160 | 25 | 10 | 0.1 | 1 | 0.5 | 4 | 2 |
| 161 | 25 | 15 | 0.1 | 1 | 0.5 | 4 | 2 |
| 162 | 10 | 5 | 0.3 | 1 | 0.5 | 2 | 1 |
| 163 | 15 | 5 | 0.3 | 1 | 0.5 | 2 | 1 |
| 164 | 15 | 10 | 0.3 | 1 | 0.5 | 2 | 1 |
| 165 | 20 | 5 | 0.3 | 1 | 0.5 | 2 | 1 |
| 166 | 20 | 10 | 0.3 | 1 | 0.5 | 2 | 1 |
| 167 | 20 | 15 | 0.3 | 1 | 0.5 | 2 | 1 |
| 168 | 25 | 10 | 0.3 | 1 | 0.5 | 2 | 1 |
| 169 | 25 | 15 | 0.3 | 1 | 0.5 | 4 | 2 |
| 170 | 10 | 5 | 0.3 | 1 | 0.5 | 4 | 2 |
| 171 | 15 | 5 | 0.3 | 1 | 0.5 | 4 | 2 |
| 172 | 15 | 10 | 0.3 | 1 | 0.5 | 4 | 2 |
| 173 | 20 | 5 | 0.3 | 1 | 0.5 | 4 | 2 |
| 174 | 20 | 10 | 0.3 | 1 | 0.5 | 4 | 2 |
| 175 | 20 | 15 | 0.3 | 1 | 0.5 | 4 | 2 |
| 176 | 25 | 10 | 0.3 | 1 | 0.5 | 4 | 2 |
| 177 | 25 | 15 | 0.3 | 1 | 0.5 | 4 | 2 |
| 178 | 10 | 5 | 0.7 | 1 | 0.5 | 2 | 1 |
| 179 | 15 | 5 | 0.7 | 1 | 0.5 | 2 | 1 |
| 180 | 20 | 5 | 0.7 | 1 | 0.5 | 2 | 1 |
| 181 | 10 | 5 | 0.7 | 1 | 0.5 | 4 | 2 |
| 182 | 15 | 5 | 0.7 | 1 | 0.5 | 4 | 2 |
| 183 | 15 | 10 | 0.7 | 1 | 0.5 | 4 | 2 |
| 184 | 20 | 5 | 0.7 | 1 | 0.5 | 4 | 2 |
| 185 | 20 | 10 | 0.7 | 1 | 0.5 | 4 | 2 |
| 186 | 25 | 10 | 0.7 | 1 | 0.5 | 4 | 2 |
| 187 | 10 | 5 | 0.1 | 1 | 0.5 | 1 | 1 |
| 188 | 15 | 5 | 0.1 | 1 | 0.5 | 1 | 1 |
| 189 | 15 | 10 | 0.1 | 1 | 0.5 | 1 | 1 |
| 190 | 20 | 5 | 0.1 | 1 | 0.5 | 1 | 1 |
| 191 | 20 | 10 | 0.1 | 1 | 0.5 | 1 | 1 |
| 192 | 20 | 15 | 0.1 | 1 | 0.5 | 1 | 1 |
| 193 | 25 | 10 | 0.1 | 1 | 0.5 | 1 | 1 |
| 194 | 25 | 15 | 0.1 | 1 | 0.5 | 1 | 1 |
| 195 | 10 | 5 | 0.1 | 1 | 0.5 | 2 | 2 |
| 196 | 15 | 5 | 0.1 | 1 | 0.5 | 2 | 2 |
| 197 | 15 | 10 | 0.1 | 1 | 0.5 | 2 | 2 |
| 198 | 20 | 5 | 0.1 | 1 | 0.5 | 2 | 2 |
| 199 | 20 | 10 | 0.1 | 1 | 0.5 | 2 | 2 |
| 200 | 20 | 15 | 0.1 | 1 | 0.5 | 2 | 2 |
| 201 | 25 | 10 | 0.1 | 1 | 0.5 | 2 | 2 |
| 202 | 25 | 15 | 0.1 | 1 | 0.5 | 2 | 2 |
| 203 | 10 | 5 | 0.3 | 1 | 0.5 | 1 | 1 |
| 204 | 15 | 5 | 0.3 | 1 | 0.5 | 1 | 1 |
| 205 | 15 | 10 | 0.3 | 1 | 0.5 | 1 | 1 |
| 206 | 20 | 5 | 0.3 | 1 | 0.5 | 1 | 1 |
| 207 | 20 | 10 | 0.3 | 1 | 0.5 | 1 | 1 |
| 208 | 20 | 15 | 0.3 | 1 | 0.5 | 1 | 1 |
| 209 | 25 | 10 | 0.3 | 1 | 0.5 | 1 | 1 |
| 210 | 25 | 15 | 0.3 | 1 | 0.5 | 1 | 1 |
| 211 | 10 | 5 | 0.3 | 1 | 0.5 | 2 | 2 |
| 212 | 15 | 5 | 0.3 | 1 | 0.5 | 2 | 2 |
| 213 | 15 | 10 | 0.3 | 1 | 0.5 | 2 | 2 |
| 214 | 20 | 5 | 0.3 | 1 | 0.5 | 2 | 2 |
| 215 | 20 | 10 | 0.3 | 1 | 0.5 | 2 | 2 |
| 216 | 20 | 15 | 0.3 | 1 | 0.5 | 2 | 2 |
| 217 | 25 | 10 | 0.3 | 1 | 0.5 | 2 | 2 |
| 218 | 25 | 15 | 0.3 | 1 | 0.5 | 2 | 2 |
| 219 | 10 | 5 | 0.7 | 1 | 0.5 | 1 | 1 |
| 220 | 15 | 5 | 0.7 | 1 | 0.5 | 1 | 1 |
| 221 | 10 | 5 | 0.7 | 1 | 0.5 | 2 | 2 |
| 222 | 15 | 5 | 0.7 | 1 | 0.5 | 2 | 2 |
| 223 | 15 | 10 | 0.7 | 1 | 0.5 | 2 | 2 |
| 224 | 20 | 5 | 0.7 | 1 | 0.5 | 2 | 2 |

The Level-2 intercept parameters ($\beta_{00}$ Figure 29 and $\beta_{10}$ Figure 30) with small sample sizes and initial error variance $\sigma_e^2 = 1.0$ that did not have a minimum sufficient power of

0.80 (Table 16), achieved sufficient power when re-sampled to 30 samples at each level for large effect size 0.7 (Tables 17 to 19 and Figure 29 and 30: left-hand side in green), and for initial error variance $\sigma_e^2 = 2.0$ less than 30 re-sampled samples at each level for effect size 0.7 (Tables 17 to 19 and Figure 29 and 30: right-hand side in green).

For medium effect size 0.3 (Figures 29 to 32: in blue), the Level-2 intercept parameters achieved minimum sufficient power of 0.80 when re-sampled to 200 samples at each level for initial error variance $\sigma_e^2 = 1.0$ (Tables 17 to 19 and Figures 29 and 30: left-hand side in blue) and 100 re-sampled samples at each level for initial error variance $\sigma_e^2 = 2.0$ (Tables 17 to 19 and Figures 29 and 30: right-hand side in blue).

The Level-2 intercept parameters with small sample sizes that did not have a minimum power of 0.80 still did not achieve minimum sufficient power for small effect size 0.1 and initial error variance $\sigma_e^2 = 1.0$ and 2.0 (Tables 17 to 19 and Figure 29 and 30: in black). When small sample sizes were re-sampled to 500 samples at each level, the maximum power for Level-2 intercept parameters was around 0.60. Similar to the Level-2 intercept parameters, the Level-2 slope parameters ($\beta_{01}$ Figure 31 and $\beta_{11}$ Figure 32) with small sample sizes and initial error variance $\sigma_e^2 = 1.0$ that did not have a minimum sufficient power of 0.80 (Table 16), achieved sufficient power when re-sampled to 100 samples at each level for large effect size 0.7 (Tables 17 to 19 and Figure 31 and 32: left-hand side in green). The Level-2 slope parameter re-sampled sample size per level to achieve minimum power of 0.80 was 70 sample sizes greater for each level than the Level-2 intercept parameters. For initial error variance $\sigma_e^2 = 2.0$ and predictor variances $\sigma_A^2 = \sigma_X^2 = 1.0$ and $\sigma_A^2 = 0.5, \sigma_X^2 = 1.0$, 30 re-sampled sample sizes at each level for effect size 0.7 were required for sufficient power of 0.80, and for $\sigma_A^2 = 1.0, \sigma_X^2 = 0.5$, 50 re-sampled samples at each level for effect size 0.7 (Tables 17 to 19 and Figure 31 and 32: right-hand side in green).

For medium effect size 0.3, the Level-2 slope parameters achieved minimum sufficient power of 0.80 when re-sampled to 200 sample sizes at each level for initial error variance $\sigma_e^2 = 1.0, 2.0$, and predictor variances $\sigma_A^2 = \sigma_X^2 = 1.0$ and $\sigma_A^2 = 0.5, \sigma_X^2 = 1.0$. Whereas, 500 re-sampled samples at each level were required for initial error variance $\sigma_e^2 = 1.0$ and

predictor variances $\sigma_A^2 = 1.0, \sigma_X^2 = 0.5$ to achieve sufficient power of 0.80 (Tables 17 to 19 and Figures 31 and 32: left-hand side in blue), and between 200 and 500 re-sampled samples at each level for initial error variance $\sigma_e^2 = 2.0$ (Tables 17 to 19 and Figures 31 and 32: right-hand side in blue). That is, when predictor variance at the team level (Level-2) is considered half, the number of sample sizes per level increased.

The Level-2 slope parameters with small sample sizes that did not have a minimum power of 0.80 still did not achieve minimum sufficient power for small effect size 0.1 and initial error variance $\sigma_e^2 = 1.0$ and 2.0, even when re-sampled to 500 samples at each level (Tables 17 to 19 and Figure 29 and 30: in black).

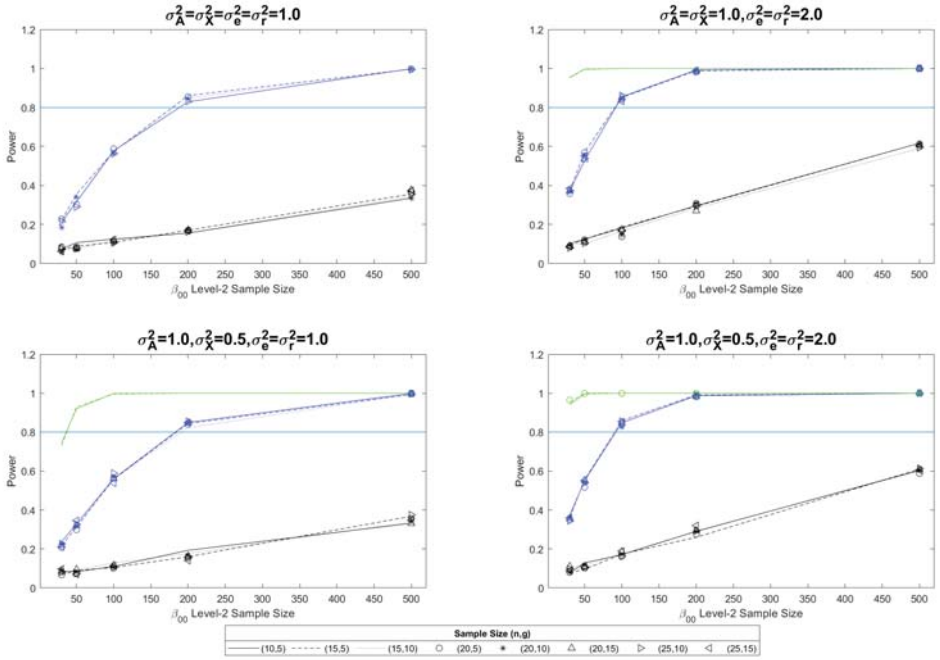


**Figure 29. Level-2 $\beta_{00}$ re-sampled sample size power results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios $\sigma_A^2 = \sigma_X^2 = 1.0$ (top) and $\sigma_A^2 = 1.0$, $\sigma_X^2 = 0.5$ (bottom) with initial error variance $\sigma_e^2 = \sigma_r^2 = 1$.**

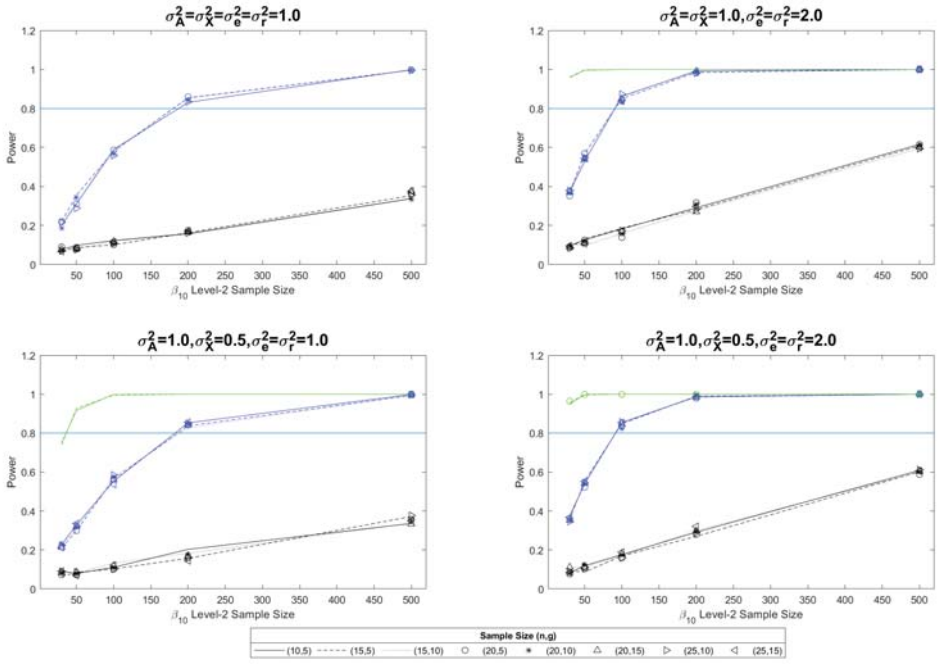


**Figure 30. Level-2 $\beta_{10}$ re-sampled sample size power results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios $\sigma^2_A = \sigma^2_X = 1.0$ (top) and $\sigma^2_A = 1.0$, $\sigma^2_X = 0.5$ (bottom) with initial error variance $\sigma^2_e = \sigma^2_r = 1$.**

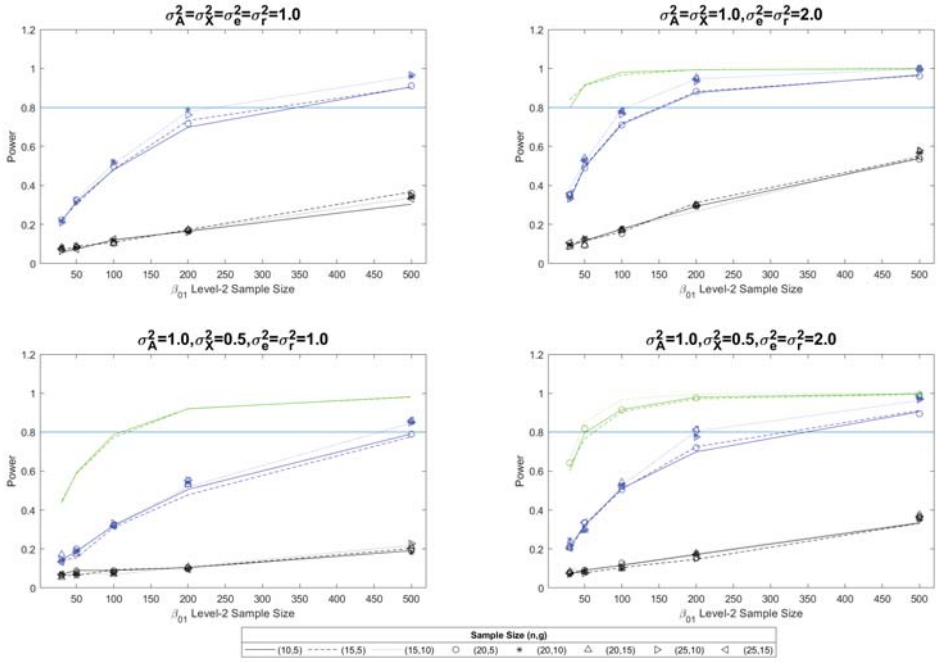


**Figure 31. Level-2 $\beta_{01}$ re-sampled sample size power results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios $\sigma^2_A = \sigma^2_X = 1.0$ (top) and $\sigma^2_A = 1.0$, $\sigma^2_X = 0.5$ (bottom) with initial error variance $\sigma^2_e = \sigma^2_r = 1$.**

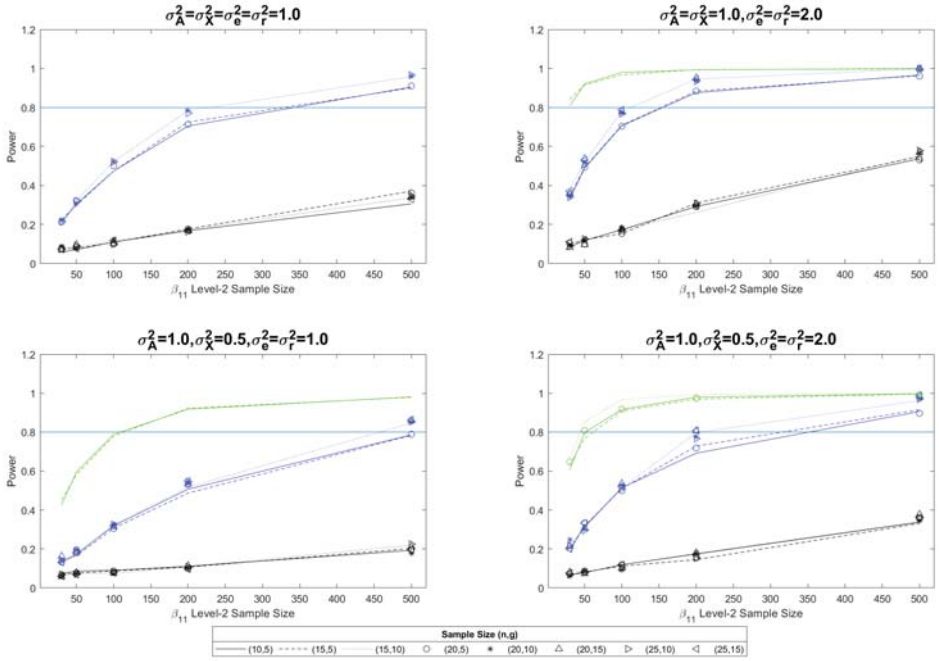


**Figure 32. Level-2 $\beta_{11}$ re-sampled sample size power results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios $\sigma^2_A = \sigma^2_X = 1.0$ (top) and $\sigma^2_A = 1.0$, $\sigma^2_X = 0.5$ (bottom) with initial error variance $\sigma^2_e = \sigma^2_r = 1$.**

**Table 17. Average power values for Level-2 parameters based on re-sampled sample sizes for conditions 1 - 75. Minimum power between 0.80 and 0.90 highlighted in light green and greater than 0.90 highlighted in dark green.**

| | | $\beta_{00}$ | | | | | $\beta_{01}$ | | | | | $\beta_{10}$ | | | | | $\beta_{11}$ | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Extrapolated Sample Size | | | | | | | | | | | | | | | | | | | |
| Condition | Effect Size | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 |
| 1 | 0.1 | 0.08 | 0.08 | 0.11 | 0.16 | 0.35 | 0.08 | 0.08 | 0.10 | 0.19 | 0.33 | 0.07 | 0.08 | 0.11 | 0.16 | 0.35 | 0.08 | 0.10 | 0.10 | 0.19 | 0.34 |
| 2 | 0.1 | 0.08 | 0.10 | 0.13 | 0.19 | 0.36 | 0.09 | 0.08 | 0.11 | 0.15 | 0.33 | 0.07 | 0.09 | 0.12 | 0.20 | 0.36 | 0.09 | 0.09 | 0.12 | 0.16 | 0.33 |
| 3 | 0.1 | 0.09 | 0.09 | 0.12 | 0.16 | 0.34 | 0.08 | 0.09 | 0.14 | 0.18 | 0.36 | 0.09 | 0.08 | 0.12 | 0.16 | 0.35 | 0.08 | 0.10 | 0.13 | 0.18 | 0.36 |
| 4 | 0.1 | 0.07 | 0.09 | 0.11 | 0.16 | 0.32 | 0.07 | 0.08 | 0.10 | 0.19 | 0.34 | 0.07 | 0.08 | 0.11 | 0.16 | 0.32 | 0.08 | 0.09 | 0.10 | 0.19 | 0.34 |
| 5 | 0.1 | 0.08 | 0.09 | 0.13 | 0.16 | 0.35 | 0.07 | 0.08 | 0.13 | 0.18 | 0.33 | 0.07 | 0.08 | 0.12 | 0.16 | 0.36 | 0.07 | 0.09 | 0.12 | 0.19 | 0.33 |
| 6 | 0.1 | 0.07 | 0.09 | 0.11 | 0.16 | 0.36 | 0.08 | 0.08 | 0.11 | 0.16 | 0.35 | 0.07 | 0.09 | 0.10 | 0.17 | 0.36 | 0.07 | 0.09 | 0.11 | 0.17 | 0.35 |
| 7 | 0.1 | 0.07 | 0.09 | 0.12 | 0.17 | 0.34 | 0.08 | 0.10 | 0.11 | 0.18 | 0.34 | 0.08 | 0.09 | 0.11 | 0.17 | 0.34 | 0.08 | 0.09 | 0.11 | 0.18 | 0.34 |
| 8 | 0.1 | 0.08 | 0.09 | 0.10 | 0.15 | 0.36 | 0.08 | 0.08 | 0.10 | 0.15 | 0.36 | 0.08 | 0.09 | 0.10 | 0.14 | 0.36 | 0.09 | 0.08 | 0.11 | 0.16 | 0.37 |
| 9 | 0.1 | 0.09 | 0.13 | 0.19 | 0.29 | 0.60 | 0.10 | 0.12 | 0.18 | 0.26 | 0.52 | 0.09 | 0.13 | 0.18 | 0.30 | 0.60 | 0.10 | 0.12 | 0.18 | 0.26 | 0.52 |
| 10 | 0.1 | 0.08 | 0.12 | 0.18 | 0.30 | 0.60 | 0.10 | 0.11 | 0.17 | 0.29 | 0.51 | 0.09 | 0.11 | 0.18 | 0.29 | 0.61 | 0.09 | 0.10 | 0.16 | 0.30 | 0.51 |
| 11 | 0.1 | 0.10 | 0.11 | 0.18 | 0.29 | 0.62 | 0.09 | 0.13 | 0.17 | 0.27 | 0.58 | 0.09 | 0.10 | 0.18 | 0.29 | 0.62 | 0.08 | 0.13 | 0.18 | 0.26 | 0.57 |
| 12 | 0.1 | 0.10 | 0.14 | 0.15 | 0.29 | 0.60 | 0.08 | 0.12 | 0.17 | 0.28 | 0.53 | 0.10 | 0.14 | 0.15 | 0.29 | 0.60 | 0.09 | 0.12 | 0.18 | 0.29 | 0.54 |
| 13 | 0.1 | 0.09 | 0.13 | 0.17 | 0.32 | 0.61 | 0.08 | 0.11 | 0.16 | 0.29 | 0.59 | 0.10 | 0.13 | 0.16 | 0.31 | 0.61 | 0.08 | 0.12 | 0.16 | 0.29 | 0.59 |
| 14 | 0.1 | 0.09 | 0.11 | 0.17 | 0.30 | 0.60 | 0.09 | 0.12 | 0.19 | 0.29 | 0.59 | 0.08 | 0.11 | 0.17 | 0.30 | 0.60 | 0.10 | 0.13 | 0.18 | 0.28 | 0.59 |
| 15 | 0.1 | 0.11 | 0.12 | 0.18 | 0.31 | 0.60 | 0.10 | 0.11 | 0.19 | 0.27 | 0.56 | 0.11 | 0.11 | 0.18 | 0.31 | 0.60 | 0.10 | 0.11 | 0.20 | 0.28 | 0.56 |
| 16 | 0.1 | 0.09 | 0.10 | 0.17 | 0.27 | 0.62 | 0.11 | 0.11 | 0.14 | 0.27 | 0.57 | 0.10 | 0.09 | 0.17 | 0.27 | 0.61 | 0.11 | 0.11 | 0.14 | 0.27 | 0.57 |
| 17 | 0.3 | 0.22 | 0.31 | 0.57 | 0.84 | 1.00 | 0.22 | 0.31 | 0.47 | 0.71 | 0.89 | 0.23 | 0.32 | 0.57 | 0.83 | 1.00 | 0.22 | 0.30 | 0.47 | 0.72 | 0.89 |
| 18 | 0.3 | 0.24 | 0.31 | 0.56 | 0.86 | 1.00 | 0.24 | 0.31 | 0.49 | 0.69 | 0.92 | 0.23 | 0.32 | 0.55 | 0.87 | 1.00 | 0.24 | 0.30 | 0.49 | 0.70 | 0.92 |
| 19 | 0.3 | 0.23 | 0.32 | 0.58 | 0.86 | 1.00 | 0.22 | 0.31 | 0.48 | 0.75 | 0.96 | 0.22 | 0.32 | 0.57 | 0.87 | 1.00 | 0.20 | 0.30 | 0.49 | 0.75 | 0.96 |
| 20 | 0.3 | 0.23 | 0.35 | 0.56 | 0.85 | 1.00 | 0.23 | 0.32 | 0.50 | 0.69 | 0.91 | 0.23 | 0.34 | 0.55 | 0.85 | 1.00 | 0.22 | 0.32 | 0.51 | 0.69 | 0.92 |
| 21 | 0.3 | 0.24 | 0.31 | 0.55 | 0.86 | 1.00 | 0.21 | 0.31 | 0.55 | 0.78 | 0.96 | 0.23 | 0.31 | 0.56 | 0.86 | 1.00 | 0.21 | 0.30 | 0.56 | 0.77 | 0.96 |
| 22 | 0.3 | 0.22 | 0.33 | 0.56 | 0.84 | 1.00 | 0.23 | 0.33 | 0.55 | 0.79 | 0.99 | 0.21 | 0.31 | 0.55 | 0.84 | 1.00 | 0.22 | 0.32 | 0.55 | 0.78 | 0.99 |
| 23 | 0.3 | 0.20 | 0.30 | 0.56 | 0.85 | 1.00 | 0.21 | 0.31 | 0.54 | 0.77 | 0.97 | 0.21 | 0.31 | 0.58 | 0.85 | 1.00 | 0.22 | 0.30 | 0.54 | 0.77 | 0.97 |
| 24 | 0.3 | 0.36 | 0.54 | 0.84 | 0.99 | 1.00 | 0.33 | 0.48 | 0.72 | 0.85 | 0.97 | 0.37 | 0.54 | 0.84 | 0.98 | 1.00 | 0.35 | 0.49 | 0.71 | 0.85 | 0.97 |
| 25 | 0.3 | 0.38 | 0.52 | 0.85 | 0.99 | 1.00 | 0.35 | 0.46 | 0.71 | 0.88 | 0.96 | 0.39 | 0.54 | 0.85 | 0.99 | 1.00 | 0.33 | 0.44 | 0.72 | 0.88 | 0.97 |
| 26 | 0.3 | 0.38 | 0.55 | 0.84 | 0.99 | 1.00 | 0.35 | 0.51 | 0.77 | 0.93 | 0.99 | 0.36 | 0.54 | 0.85 | 0.99 | 1.00 | 0.35 | 0.53 | 0.78 | 0.93 | 0.99 |
| 27 | 0.3 | 0.37 | 0.58 | 0.83 | 0.99 | 1.00 | 0.35 | 0.48 | 0.72 | 0.89 | 0.97 | 0.38 | 0.58 | 0.84 | 0.99 | 1.00 | 0.34 | 0.48 | 0.73 | 0.89 | 0.97 |
| 28 | 0.3 | 0.34 | 0.52 | 0.86 | 0.99 | 1.00 | 0.34 | 0.51 | 0.78 | 0.93 | 1.00 | 0.34 | 0.53 | 0.85 | 0.99 | 1.00 | 0.33 | 0.52 | 0.77 | 0.94 | 1.00 |
| 29 | 0.3 | 0.36 | 0.54 | 0.82 | 0.99 | 1.00 | 0.41 | 0.52 | 0.79 | 0.95 | 1.00 | 0.36 | 0.53 | 0.82 | 0.99 | 1.00 | 0.40 | 0.53 | 0.79 | 0.95 | 1.00 |
| 30 | 0.3 | 0.35 | 0.57 | 0.84 | 0.99 | 1.00 | 0.34 | 0.52 | 0.80 | 0.93 | 1.00 | 0.35 | 0.58 | 0.84 | 0.99 | 1.00 | 0.33 | 0.51 | 0.80 | 0.93 | 1.00 |
| 31 | 0.3 | 0.37 | 0.57 | 0.83 | 0.99 | 1.00 | 0.36 | 0.50 | 0.80 | 0.96 | 1.00 | 0.36 | 0.55 | 0.83 | 0.99 | 1.00 | 0.37 | 0.50 | 0.80 | 0.97 | 1.00 |
| 32 | 0.7 | 0.74 | 0.91 | 1.00 | 1.00 | 1.00 | 0.64 | 0.79 | 0.91 | 0.98 | 1.00 | 0.73 | 0.91 | 1.00 | 1.00 | 1.00 | 0.63 | 0.79 | 0.91 | 0.98 | 1.00 |
| 33 | 0.7 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 | 0.92 | 0.97 | 0.99 | 1.00 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.81 | 0.92 | 0.98 | 0.99 | 1.00 |
| 34 | 0.7 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 | 0.81 | 0.90 | 0.97 | 0.99 | 1.00 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 | 0.90 | 0.97 | 0.99 | 1.00 |
| 35 | 0.7 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 | 0.81 | 0.91 | 0.98 | 0.99 | 1.00 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.81 | 0.91 | 0.98 | 0.99 | 1.00 |
| 36 | 0.1 | 0.07 | 0.11 | 0.13 | 0.16 | 0.34 | 0.06 | 0.07 | 0.12 | 0.17 | 0.30 | 0.08 | 0.10 | 0.12 | 0.16 | 0.34 | 0.06 | 0.07 | 0.11 | 0.17 | 0.31 |
| 37 | 0.1 | 0.07 | 0.09 | 0.11 | 0.17 | 0.36 | 0.07 | 0.09 | 0.11 | 0.17 | 0.37 | 0.07 | 0.09 | 0.10 | 0.16 | 0.35 | 0.08 | 0.08 | 0.11 | 0.18 | 0.37 |
| 38 | 0.1 | 0.07 | 0.07 | 0.12 | 0.16 | 0.34 | 0.07 | 0.08 | 0.12 | 0.17 | 0.34 | 0.07 | 0.08 | 0.12 | 0.15 | 0.34 | 0.08 | 0.09 | 0.12 | 0.17 | 0.34 |
| 39 | 0.1 | 0.09 | 0.08 | 0.11 | 0.17 | 0.36 | 0.07 | 0.08 | 0.10 | 0.17 | 0.36 | 0.09 | 0.09 | 0.10 | 0.18 | 0.36 | 0.08 | 0.08 | 0.10 | 0.18 | 0.36 |
| 40 | 0.1 | 0.06 | 0.07 | 0.11 | 0.17 | 0.34 | 0.08 | 0.08 | 0.12 | 0.16 | 0.34 | 0.07 | 0.07 | 0.11 | 0.17 | 0.33 | 0.09 | 0.08 | 0.12 | 0.17 | 0.34 |
| 41 | 0.1 | 0.08 | 0.08 | 0.12 | 0.17 | 0.38 | 0.08 | 0.09 | 0.10 | 0.17 | 0.34 | 0.08 | 0.08 | 0.12 | 0.17 | 0.38 | 0.07 | 0.10 | 0.10 | 0.17 | 0.34 |
| 42 | 0.1 | 0.08 | 0.08 | 0.11 | 0.16 | 0.36 | 0.06 | 0.09 | 0.11 | 0.16 | 0.35 | 0.07 | 0.08 | 0.11 | 0.16 | 0.36 | 0.07 | 0.09 | 0.10 | 0.16 | 0.35 |
| 43 | 0.1 | 0.06 | 0.08 | 0.12 | 0.17 | 0.37 | 0.08 | 0.07 | 0.13 | 0.17 | 0.33 | 0.07 | 0.08 | 0.12 | 0.17 | 0.38 | 0.07 | 0.08 | 0.12 | 0.17 | 0.33 |
| 44 | 0.1 | 0.10 | 0.13 | 0.18 | 0.30 | 0.62 | 0.09 | 0.12 | 0.18 | 0.29 | 0.54 | 0.10 | 0.13 | 0.18 | 0.29 | 0.62 | 0.08 | 0.12 | 0.17 | 0.29 | 0.54 |
| 45 | 0.1 | 0.09 | 0.13 | 0.19 | 0.29 | 0.62 | 0.10 | 0.12 | 0.16 | 0.31 | 0.54 | 0.09 | 0.13 | 0.19 | 0.28 | 0.61 | 0.10 | 0.12 | 0.15 | 0.31 | 0.55 |
| 46 | 0.1 | 0.10 | 0.10 | 0.17 | 0.28 | 0.59 | 0.11 | 0.11 | 0.18 | 0.27 | 0.55 | 0.11 | 0.10 | 0.16 | 0.28 | 0.60 | 0.10 | 0.12 | 0.17 | 0.26 | 0.56 |
| 47 | 0.1 | 0.09 | 0.12 | 0.14 | 0.31 | 0.61 | 0.10 | 0.09 | 0.15 | 0.29 | 0.54 | 0.09 | 0.13 | 0.14 | 0.32 | 0.62 | 0.10 | 0.10 | 0.15 | 0.29 | 0.53 |
| 48 | 0.1 | 0.09 | 0.12 | 0.15 | 0.31 | 0.61 | 0.10 | 0.13 | 0.18 | 0.30 | 0.57 | 0.09 | 0.12 | 0.16 | 0.31 | 0.61 | 0.09 | 0.12 | 0.18 | 0.30 | 0.57 |
| 49 | 0.1 | 0.09 | 0.11 | 0.17 | 0.27 | 0.61 | 0.09 | 0.09 | 0.17 | 0.30 | 0.58 | 0.09 | 0.11 | 0.17 | 0.27 | 0.60 | 0.08 | 0.10 | 0.18 | 0.31 | 0.57 |
| 50 | 0.1 | 0.08 | 0.11 | 0.17 | 0.29 | 0.60 | 0.09 | 0.13 | 0.17 | 0.30 | 0.58 | 0.09 | 0.11 | 0.17 | 0.28 | 0.59 | 0.09 | 0.13 | 0.18 | 0.31 | 0.58 |
| 51 | 0.1 | 0.09 | 0.11 | 0.17 | 0.30 | 0.60 | 0.11 | 0.12 | 0.18 | 0.30 | 0.55 | 0.10 | 0.11 | 0.17 | 0.30 | 0.60 | 0.11 | 0.12 | 0.17 | 0.30 | 0.54 |
| 52 | 0.3 | 0.21 | 0.32 | 0.58 | 0.83 | 1.00 | 0.22 | 0.32 | 0.48 | 0.70 | 0.91 | 0.20 | 0.31 | 0.59 | 0.83 | 1.00 | 0.21 | 0.31 | 0.47 | 0.71 | 0.91 |
| 53 | 0.3 | 0.22 | 0.36 | 0.58 | 0.86 | 1.00 | 0.23 | 0.31 | 0.48 | 0.73 | 0.90 | 0.22 | 0.36 | 0.58 | 0.86 | 1.00 | 0.23 | 0.30 | 0.47 | 0.73 | 0.90 |
| 54 | 0.3 | 0.22 | 0.31 | 0.57 | 0.85 | 1.00 | 0.20 | 0.33 | 0.51 | 0.78 | 0.96 | 0.22 | 0.32 | 0.58 | 0.85 | 1.00 | 0.20 | 0.32 | 0.52 | 0.78 | 0.96 |
| 55 | 0.3 | 0.23 | 0.30 | 0.59 | 0.86 | 1.00 | 0.22 | 0.33 | 0.50 | 0.72 | 0.91 | 0.22 | 0.31 | 0.59 | 0.86 | 1.00 | 0.21 | 0.32 | 0.50 | 0.71 | 0.91 |
| 56 | 0.3 | 0.18 | 0.34 | 0.56 | 0.85 | 1.00 | 0.22 | 0.31 | 0.52 | 0.79 | 0.96 | 0.19 | 0.35 | 0.57 | 0.84 | 1.00 | 0.22 | 0.31 | 0.52 | 0.79 | 0.96 |
| 57 | 0.3 | 0.22 | 0.29 | 0.56 | 0.83 | 0.99 | 0.21 | 0.32 | 0.52 | 0.76 | 0.97 | 0.22 | 0.29 | 0.56 | 0.83 | 1.00 | 0.22 | 0.32 | 0.52 | 0.77 | 0.97 |
| 58 | 0.3 | 0.37 | 0.53 | 0.85 | 0.99 | 1.00 | 0.33 | 0.49 | 0.71 | 0.88 | 0.97 | 0.37 | 0.53 | 0.86 | 0.99 | 1.00 | 0.33 | 0.49 | 0.71 | 0.88 | 0.97 |
| 59 | 0.3 | 0.37 | 0.57 | 0.85 | 0.99 | 1.00 | 0.34 | 0.50 | 0.72 | 0.88 | 0.96 | 0.37 | 0.57 | 0.85 | 0.99 | 1.00 | 0.34 | 0.49 | 0.71 | 0.88 | 0.96 |
| 60 | 0.3 | 0.36 | 0.55 | 0.86 | 0.99 | 1.00 | 0.38 | 0.52 | 0.79 | 0.95 | 1.00 | 0.38 | 0.55 | 0.87 | 0.99 | 1.00 | 0.38 | 0.52 | 0.78 | 0.95 | 1.00 |
| 61 | 0.3 | 0.36 | 0.57 | 0.84 | 0.98 | 1.00 | 0.35 | 0.49 | 0.71 | 0.88 | 0.96 | 0.35 | 0.57 | 0.84 | 0.98 | 1.00 | 0.36 | 0.49 | 0.70 | 0.88 | 0.96 |
| 62 | 0.3 | 0.37 | 0.56 | 0.84 | 0.99 | 1.00 | 0.33 | 0.53 | 0.78 | 0.94 | 1.00 | 0.37 | 0.54 | 0.83 | 0.99 | 1.00 | 0.34 | 0.52 | 0.77 | 0.94 | 1.00 |
| 63 | 0.3 | 0.37 | 0.53 | 0.85 | 0.99 | 1.00 | 0.35 | 0.54 | 0.78 | 0.95 | 1.00 | 0.37 | 0.54 | 0.85 | 0.99 | 1.00 | 0.36 | 0.54 | 0.78 | 0.95 | 1.00 |
| 64 | 0.3 | 0.37 | 0.54 | 0.86 | 0.99 | 1.00 | 0.33 | 0.51 | 0.77 | 0.93 | 1.00 | 0.38 | 0.55 | 0.87 | 0.98 | 1.00 | 0.34 | 0.51 | 0.77 | 0.94 | 1.00 |
| 65 | 0.3 | 0.38 | 0.55 | 0.83 | 0.99 | 1.00 | 0.36 | 0.53 | 0.78 | 0.95 | 1.00 | 0.38 | 0.54 | 0.84 | 0.99 | 1.00 | 0.37 | 0.53 | 0.79 | 0.94 | 1.00 |
| 66 | 0.7 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 | 0.92 | 0.98 | 0.99 | 1.00 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.81 | 0.92 | 0.98 | 0.99 | 1.00 |
| 67 | 0.7 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.84 | 0.91 | 0.97 | 0.99 | 1.00 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.84 | 0.92 | 0.97 | 0.99 | 1.00 |
| 68 | 0.1 | 0.10 | 0.07 | 0.11 | 0.18 | 0.35 | 0.08 | 0.09 | 0.11 | 0.15 | 0.32 | 0.09 | 0.07 | 0.11 | 0.18 | 0.35 | 0.08 | 0.09 | 0.11 | 0.15 | 0.32 |
| 69 | 0.1 | 0.08 | 0.07 | 0.11 | 0.18 | 0.35 | 0.08 | 0.09 | 0.10 | 0.16 | 0.33 | 0.08 | 0.08 | 0.09 | 0.18 | 0.36 | 0.08 | 0.08 | 0.10 | 0.17 | 0.33 |
| 70 | 0.1 | 0.09 | 0.11 | 0.12 | 0.16 | 0.33 | 0.08 | 0.08 | 0.10 | 0.16 | 0.35 | 0.08 | 0.10 | 0.12 | 0.17 | 0.33 | 0.08 | 0.09 | 0.10 | 0.17 | 0.36 |
| 71 | 0.1 | 0.07 | 0.09 | 0.11 | 0.18 | 0.35 | 0.08 | 0.08 | 0.10 | 0.18 | 0.33 | 0.08 | 0.09 | 0.11 | 0.18 | 0.34 | 0.08 | 0.08 | 0.11 | 0.17 | 0.32 |
| 72 | 0.1 | 0.09 | 0.09 | 0.11 | 0.19 | 0.33 | 0.09 | 0.09 | 0.11 | 0.17 | 0.35 | 0.09 | 0.08 | 0.11 | 0.18 | 0.34 | 0.09 | 0.10 | 0.10 | 0.17 | 0.35 |
| 73 | 0.1 | 0.07 | 0.09 | 0.12 | 0.15 | 0.37 | 0.07 | 0.09 | 0.10 | 0.18 | 0.32 | 0.07 | 0.08 | 0.12 | 0.15 | 0.37 | 0.06 | 0.10 | 0.11 | 0.16 | 0.33 |
| 74 | 0.1 | 0.08 | 0.08 | 0.10 | 0.17 | 0.35 | 0.07 | 0.09 | 0.12 | 0.18 | 0.34 | 0.08 | 0.08 | 0.11 | 0.18 | 0.35 | 0.08 | 0.08 | 0.11 | 0.17 | 0.34 |
| 75 | 0.1 | 0.06 | 0.10 | 0.10 | 0.21 | 0.33 | 0.09 | 0.08 | 0.11 | 0.17 | 0.36 | 0.06 | 0.09 | 0.10 | 0.21 | 0.33 | 0.09 | 0.08 | 0.10 | 0.17 | 0.36 |

**Table 18. Average power values for Level-2 parameters based on re-sampled sample sizes for conditions 76 - 150. Minimum power between 0.80 and 0.90 highlighted in light green and greater than 0.90 highlighted in dark green.**

| | | $\beta_{00}$ | | | | | $\beta_{01}$ | | | | | $\beta_{10}$ | | | | | $\beta_{11}$ | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Extrapolated Sample Size | | | | | | | | | | | | | | | | | | | |
| Condition | Effect Size | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 |
| 76 | 0.1 | 0.10 | 0.13 | 0.17 | 0.32 | 0.63 | 0.12 | 0.11 | 0.18 | 0.26 | 0.54 | 0.10 | 0.12 | 0.18 | 0.32 | 0.63 | 0.10 | 0.10 | 0.18 | 0.25 | 0.54 |
| 77 | 0.1 | 0.10 | 0.12 | 0.18 | 0.29 | 0.62 | 0.10 | 0.12 | 0.17 | 0.29 | 0.55 | 0.10 | 0.13 | 0.17 | 0.29 | 0.61 | 0.10 | 0.12 | 0.17 | 0.28 | 0.55 |
| 78 | 0.1 | 0.09 | 0.12 | 0.18 | 0.31 | 0.62 | 0.12 | 0.11 | 0.15 | 0.27 | 0.55 | 0.11 | 0.12 | 0.17 | 0.30 | 0.61 | 0.11 | 0.11 | 0.14 | 0.28 | 0.55 |
| 79 | 0.1 | 0.12 | 0.13 | 0.17 | 0.32 | 0.60 | 0.12 | 0.11 | 0.18 | 0.27 | 0.51 | 0.11 | 0.13 | 0.17 | 0.32 | 0.60 | 0.10 | 0.12 | 0.18 | 0.27 | 0.51 |
| 80 | 0.1 | 0.08 | 0.12 | 0.18 | 0.29 | 0.61 | 0.08 | 0.11 | 0.18 | 0.29 | 0.56 | 0.08 | 0.11 | 0.17 | 0.29 | 0.61 | 0.07 | 0.11 | 0.18 | 0.28 | 0.57 |
| 81 | 0.1 | 0.08 | 0.12 | 0.16 | 0.28 | 0.58 | 0.10 | 0.14 | 0.17 | 0.31 | 0.58 | 0.07 | 0.11 | 0.15 | 0.28 | 0.58 | 0.10 | 0.13 | 0.16 | 0.30 | 0.58 |
| 82 | 0.1 | 0.10 | 0.13 | 0.20 | 0.31 | 0.62 | 0.10 | 0.10 | 0.16 | 0.26 | 0.59 | 0.10 | 0.13 | 0.18 | 0.31 | 0.62 | 0.11 | 0.11 | 0.16 | 0.27 | 0.59 |
| 83 | 0.1 | 0.09 | 0.09 | 0.16 | 0.29 | 0.62 | 0.09 | 0.10 | 0.18 | 0.28 | 0.58 | 0.10 | 0.11 | 0.16 | 0.30 | 0.62 | 0.08 | 0.10 | 0.19 | 0.28 | 0.58 |
| 84 | 0.3 | 0.21 | 0.32 | 0.56 | 0.83 | 1.00 | 0.23 | 0.31 | 0.52 | 0.70 | 0.91 | 0.20 | 0.30 | 0.56 | 0.83 | 1.00 | 0.22 | 0.30 | 0.51 | 0.71 | 0.91 |
| 85 | 0.3 | 0.21 | 0.31 | 0.55 | 0.86 | 0.99 | 0.24 | 0.29 | 0.52 | 0.72 | 0.91 | 0.20 | 0.30 | 0.54 | 0.86 | 0.99 | 0.22 | 0.30 | 0.52 | 0.73 | 0.91 |
| 86 | 0.3 | 0.23 | 0.31 | 0.57 | 0.85 | 0.99 | 0.21 | 0.32 | 0.53 | 0.79 | 0.96 | 0.23 | 0.33 | 0.57 | 0.85 | 0.99 | 0.22 | 0.32 | 0.53 | 0.79 | 0.96 |
| 87 | 0.3 | 0.23 | 0.33 | 0.54 | 0.86 | 1.00 | 0.21 | 0.29 | 0.50 | 0.73 | 0.92 | 0.22 | 0.32 | 0.52 | 0.85 | 1.00 | 0.21 | 0.30 | 0.49 | 0.73 | 0.92 |
| 88 | 0.3 | 0.23 | 0.29 | 0.57 | 0.82 | 1.00 | 0.19 | 0.32 | 0.56 | 0.76 | 0.97 | 0.22 | 0.30 | 0.58 | 0.82 | 1.00 | 0.20 | 0.31 | 0.56 | 0.75 | 0.97 |
| 89 | 0.3 | 0.22 | 0.30 | 0.55 | 0.84 | 1.00 | 0.19 | 0.33 | 0.54 | 0.80 | 0.98 | 0.22 | 0.30 | 0.55 | 0.84 | 1.00 | 0.19 | 0.33 | 0.54 | 0.79 | 0.98 |
| 90 | 0.3 | 0.23 | 0.30 | 0.54 | 0.85 | 1.00 | 0.22 | 0.31 | 0.53 | 0.76 | 0.97 | 0.23 | 0.29 | 0.54 | 0.86 | 1.00 | 0.22 | 0.30 | 0.52 | 0.76 | 0.97 |
| 91 | 0.3 | 0.22 | 0.33 | 0.58 | 0.84 | 1.00 | 0.22 | 0.29 | 0.54 | 0.81 | 0.98 | 0.23 | 0.31 | 0.56 | 0.83 | 1.00 | 0.21 | 0.30 | 0.53 | 0.81 | 0.98 |
| 92 | 0.3 | 0.34 | 0.54 | 0.86 | 0.99 | 1.00 | 0.34 | 0.50 | 0.73 | 0.88 | 0.97 | 0.35 | 0.53 | 0.86 | 0.99 | 1.00 | 0.33 | 0.49 | 0.72 | 0.87 | 0.98 |
| 93 | 0.3 | 0.36 | 0.58 | 0.84 | 0.99 | 1.00 | 0.37 | 0.50 | 0.71 | 0.86 | 0.98 | 0.37 | 0.56 | 0.85 | 0.98 | 1.00 | 0.35 | 0.47 | 0.70 | 0.86 | 0.98 |
| 94 | 0.3 | 0.37 | 0.55 | 0.83 | 0.99 | 1.00 | 0.34 | 0.48 | 0.77 | 0.94 | 0.99 | 0.36 | 0.55 | 0.83 | 0.98 | 1.00 | 0.33 | 0.49 | 0.75 | 0.94 | 0.99 |
| 95 | 0.3 | 0.38 | 0.53 | 0.86 | 0.99 | 1.00 | 0.33 | 0.52 | 0.73 | 0.89 | 0.97 | 0.36 | 0.52 | 0.85 | 0.99 | 1.00 | 0.32 | 0.50 | 0.73 | 0.88 | 0.97 |
| 96 | 0.3 | 0.38 | 0.54 | 0.85 | 0.99 | 1.00 | 0.37 | 0.49 | 0.78 | 0.93 | 0.99 | 0.36 | 0.53 | 0.84 | 0.99 | 1.00 | 0.36 | 0.50 | 0.78 | 0.94 | 1.00 |
| 97 | 0.3 | 0.37 | 0.54 | 0.85 | 0.98 | 1.00 | 0.36 | 0.53 | 0.76 | 0.96 | 1.00 | 0.35 | 0.54 | 0.84 | 0.98 | 1.00 | 0.37 | 0.51 | 0.76 | 0.96 | 1.00 |
| 98 | 0.3 | 0.37 | 0.57 | 0.85 | 0.99 | 1.00 | 0.38 | 0.53 | 0.77 | 0.95 | 0.99 | 0.36 | 0.55 | 0.84 | 0.99 | 1.00 | 0.37 | 0.53 | 0.77 | 0.95 | 0.99 |
| 99 | 0.3 | 0.37 | 0.54 | 0.86 | 0.99 | 1.00 | 0.36 | 0.54 | 0.79 | 0.96 | 1.00 | 0.35 | 0.53 | 0.84 | 0.99 | 1.00 | 0.35 | 0.52 | 0.78 | 0.96 | 1.00 |
| 100 | 0.7 | 0.76 | 0.93 | 1.00 | 1.00 | 1.00 | 0.64 | 0.80 | 0.92 | 0.97 | 0.99 | 0.73 | 0.92 | 1.00 | 1.00 | 1.00 | 0.64 | 0.79 | 0.91 | 0.97 | 0.99 |
| 101 | 0.7 | 0.73 | 0.92 | 1.00 | 1.00 | 1.00 | 0.62 | 0.77 | 0.91 | 0.97 | 0.99 | 0.72 | 0.92 | 1.00 | 1.00 | 1.00 | 0.60 | 0.77 | 0.92 | 0.97 | 0.99 |
| 102 | 0.7 | 0.73 | 0.92 | 1.00 | 1.00 | 1.00 | 0.64 | 0.77 | 0.93 | 0.98 | 0.99 | 0.71 | 0.91 | 1.00 | 1.00 | 1.00 | 0.62 | 0.76 | 0.93 | 0.98 | 0.99 |
| 103 | 0.7 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 0.82 | 0.91 | 0.97 | 0.99 | 1.00 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 0.81 | 0.91 | 0.98 | 0.99 | 1.00 |
| 104 | 0.7 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.82 | 0.90 | 0.97 | 0.99 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.81 | 0.89 | 0.97 | 0.99 | 1.00 |
| 105 | 0.7 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.86 | 0.96 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.85 | 0.96 | 0.99 | 1.00 | 1.00 |
| 106 | 0.7 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.82 | 0.93 | 0.98 | 0.99 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.81 | 0.92 | 0.98 | 0.99 | 1.00 |
| 107 | 0.7 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.88 | 0.97 | 0.99 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.87 | 0.96 | 1.00 | 1.00 | 1.00 |
| 108 | 0.1 | 0.08 | 0.10 | 0.11 | 0.16 | 0.35 | 0.09 | 0.09 | 0.13 | 0.17 | 0.33 | 0.08 | 0.10 | 0.11 | 0.16 | 0.35 | 0.08 | 0.08 | 0.12 | 0.17 | 0.34 |
| 109 | 0.1 | 0.07 | 0.08 | 0.12 | 0.15 | 0.35 | 0.07 | 0.09 | 0.11 | 0.17 | 0.35 | 0.08 | 0.08 | 0.12 | 0.15 | 0.34 | 0.07 | 0.09 | 0.11 | 0.17 | 0.35 |
| 110 | 0.1 | 0.09 | 0.08 | 0.11 | 0.18 | 0.35 | 0.08 | 0.10 | 0.11 | 0.17 | 0.33 | 0.08 | 0.08 | 0.11 | 0.18 | 0.34 | 0.08 | 0.09 | 0.11 | 0.17 | 0.33 |
| 111 | 0.1 | 0.08 | 0.08 | 0.13 | 0.18 | 0.34 | 0.08 | 0.08 | 0.12 | 0.15 | 0.35 | 0.08 | 0.09 | 0.13 | 0.18 | 0.35 | 0.08 | 0.08 | 0.13 | 0.15 | 0.34 |
| 112 | 0.1 | 0.07 | 0.09 | 0.10 | 0.20 | 0.37 | 0.08 | 0.09 | 0.11 | 0.20 | 0.35 | 0.07 | 0.09 | 0.10 | 0.19 | 0.37 | 0.07 | 0.09 | 0.11 | 0.20 | 0.35 |
| 113 | 0.1 | 0.07 | 0.07 | 0.11 | 0.17 | 0.35 | 0.06 | 0.08 | 0.11 | 0.17 | 0.34 | 0.07 | 0.06 | 0.11 | 0.19 | 0.35 | 0.07 | 0.09 | 0.10 | 0.17 | 0.36 |
| 114 | 0.1 | 0.07 | 0.08 | 0.13 | 0.18 | 0.37 | 0.07 | 0.10 | 0.12 | 0.18 | 0.32 | 0.08 | 0.07 | 0.12 | 0.19 | 0.38 | 0.06 | 0.08 | 0.12 | 0.18 | 0.33 |
| 115 | 0.1 | 0.08 | 0.09 | 0.11 | 0.17 | 0.35 | 0.08 | 0.07 | 0.12 | 0.17 | 0.37 | 0.08 | 0.08 | 0.11 | 0.17 | 0.36 | 0.07 | 0.08 | 0.12 | 0.16 | 0.37 |
| 116 | 0.1 | 0.10 | 0.13 | 0.18 | 0.28 | 0.60 | 0.10 | 0.11 | 0.17 | 0.28 | 0.51 | 0.10 | 0.12 | 0.17 | 0.27 | 0.59 | 0.10 | 0.10 | 0.18 | 0.28 | 0.51 |
| 117 | 0.1 | 0.09 | 0.11 | 0.16 | 0.30 | 0.62 | 0.10 | 0.12 | 0.16 | 0.28 | 0.54 | 0.09 | 0.11 | 0.16 | 0.31 | 0.62 | 0.11 | 0.13 | 0.17 | 0.28 | 0.53 |
| 118 | 0.1 | 0.08 | 0.10 | 0.18 | 0.30 | 0.61 | 0.09 | 0.12 | 0.17 | 0.30 | 0.57 | 0.08 | 0.10 | 0.18 | 0.30 | 0.61 | 0.09 | 0.11 | 0.17 | 0.30 | 0.58 |
| 119 | 0.1 | 0.11 | 0.10 | 0.17 | 0.30 | 0.63 | 0.10 | 0.11 | 0.16 | 0.28 | 0.54 | 0.10 | 0.10 | 0.17 | 0.29 | 0.63 | 0.09 | 0.10 | 0.16 | 0.29 | 0.54 |
| 120 | 0.1 | 0.08 | 0.11 | 0.18 | 0.31 | 0.62 | 0.09 | 0.12 | 0.18 | 0.31 | 0.54 | 0.09 | 0.11 | 0.17 | 0.31 | 0.62 | 0.08 | 0.12 | 0.17 | 0.31 | 0.55 |
| 121 | 0.1 | 0.09 | 0.12 | 0.18 | 0.31 | 0.62 | 0.11 | 0.10 | 0.15 | 0.28 | 0.61 | 0.09 | 0.11 | 0.18 | 0.32 | 0.62 | 0.11 | 0.11 | 0.14 | 0.26 | 0.61 |
| 122 | 0.1 | 0.10 | 0.11 | 0.17 | 0.30 | 0.59 | 0.09 | 0.13 | 0.18 | 0.27 | 0.59 | 0.10 | 0.11 | 0.17 | 0.30 | 0.59 | 0.09 | 0.12 | 0.18 | 0.26 | 0.59 |
| 123 | 0.1 | 0.10 | 0.12 | 0.18 | 0.28 | 0.60 | 0.09 | 0.12 | 0.14 | 0.28 | 0.61 | 0.10 | 0.13 | 0.17 | 0.27 | 0.61 | 0.10 | 0.11 | 0.14 | 0.29 | 0.60 |
| 124 | 0.3 | 0.21 | 0.29 | 0.57 | 0.85 | 1.00 | 0.21 | 0.30 | 0.48 | 0.70 | 0.91 | 0.21 | 0.30 | 0.55 | 0.85 | 1.00 | 0.21 | 0.31 | 0.48 | 0.71 | 0.91 |
| 125 | 0.3 | 0.20 | 0.32 | 0.57 | 0.86 | 1.00 | 0.23 | 0.31 | 0.51 | 0.73 | 0.92 | 0.20 | 0.31 | 0.55 | 0.86 | 1.00 | 0.20 | 0.30 | 0.50 | 0.73 | 0.92 |
| 126 | 0.3 | 0.21 | 0.31 | 0.53 | 0.86 | 1.00 | 0.19 | 0.32 | 0.55 | 0.77 | 0.97 | 0.21 | 0.31 | 0.52 | 0.86 | 1.00 | 0.19 | 0.32 | 0.55 | 0.76 | 0.97 |
| 127 | 0.3 | 0.23 | 0.33 | 0.56 | 0.84 | 0.99 | 0.20 | 0.32 | 0.51 | 0.71 | 0.90 | 0.22 | 0.32 | 0.56 | 0.83 | 0.99 | 0.21 | 0.31 | 0.51 | 0.71 | 0.90 |
| 128 | 0.3 | 0.21 | 0.31 | 0.55 | 0.84 | 1.00 | 0.21 | 0.35 | 0.53 | 0.78 | 0.97 | 0.21 | 0.31 | 0.57 | 0.83 | 1.00 | 0.19 | 0.32 | 0.52 | 0.78 | 0.97 |
| 129 | 0.3 | 0.22 | 0.33 | 0.55 | 0.85 | 1.00 | 0.20 | 0.31 | 0.53 | 0.81 | 0.98 | 0.20 | 0.33 | 0.56 | 0.85 | 1.00 | 0.20 | 0.32 | 0.52 | 0.81 | 0.98 |
| 130 | 0.3 | 0.22 | 0.32 | 0.58 | 0.85 | 1.00 | 0.23 | 0.32 | 0.51 | 0.77 | 0.97 | 0.22 | 0.30 | 0.59 | 0.85 | 1.00 | 0.22 | 0.31 | 0.51 | 0.77 | 0.97 |
| 131 | 0.3 | 0.20 | 0.34 | 0.57 | 0.85 | 1.00 | 0.24 | 0.33 | 0.52 | 0.82 | 0.98 | 0.19 | 0.33 | 0.56 | 0.85 | 1.00 | 0.22 | 0.31 | 0.50 | 0.81 | 0.98 |
| 132 | 0.3 | 0.35 | 0.56 | 0.85 | 0.99 | 1.00 | 0.38 | 0.51 | 0.73 | 0.88 | 0.98 | 0.34 | 0.55 | 0.85 | 0.98 | 1.00 | 0.36 | 0.49 | 0.73 | 0.88 | 0.97 |
| 133 | 0.3 | 0.35 | 0.57 | 0.85 | 0.99 | 1.00 | 0.34 | 0.48 | 0.70 | 0.88 | 0.97 | 0.33 | 0.55 | 0.85 | 0.99 | 1.00 | 0.33 | 0.48 | 0.69 | 0.88 | 0.97 |
| 134 | 0.3 | 0.35 | 0.55 | 0.85 | 0.99 | 1.00 | 0.36 | 0.48 | 0.78 | 0.93 | 1.00 | 0.35 | 0.55 | 0.84 | 0.99 | 1.00 | 0.34 | 0.48 | 0.78 | 0.94 | 1.00 |
| 135 | 0.3 | 0.40 | 0.56 | 0.84 | 0.99 | 1.00 | 0.36 | 0.49 | 0.70 | 0.87 | 0.97 | 0.37 | 0.55 | 0.85 | 0.99 | 1.00 | 0.34 | 0.48 | 0.69 | 0.87 | 0.97 |
| 136 | 0.3 | 0.37 | 0.53 | 0.84 | 0.99 | 1.00 | 0.34 | 0.52 | 0.75 | 0.93 | 1.00 | 0.35 | 0.53 | 0.82 | 0.99 | 1.00 | 0.32 | 0.50 | 0.76 | 0.93 | 1.00 |
| 137 | 0.3 | 0.38 | 0.53 | 0.83 | 0.98 | 1.00 | 0.37 | 0.53 | 0.80 | 0.96 | 1.00 | 0.37 | 0.52 | 0.84 | 0.98 | 1.00 | 0.37 | 0.52 | 0.80 | 0.96 | 1.00 |
| 138 | 0.3 | 0.36 | 0.54 | 0.85 | 0.99 | 1.00 | 0.34 | 0.52 | 0.79 | 0.94 | 1.00 | 0.36 | 0.53 | 0.84 | 0.99 | 1.00 | 0.33 | 0.52 | 0.78 | 0.94 | 1.00 |
| 139 | 0.3 | 0.38 | 0.55 | 0.85 | 0.99 | 1.00 | 0.35 | 0.55 | 0.80 | 0.96 | 1.00 | 0.35 | 0.54 | 0.85 | 0.99 | 1.00 | 0.35 | 0.54 | 0.79 | 0.96 | 1.00 |
| 140 | 0.7 | 0.77 | 0.93 | 1.00 | 1.00 | 1.00 | 0.63 | 0.79 | 0.92 | 0.97 | 1.00 | 0.76 | 0.92 | 1.00 | 1.00 | 1.00 | 0.61 | 0.78 | 0.92 | 0.97 | 0.99 |
| 141 | 0.7 | 0.75 | 0.93 | 1.00 | 1.00 | 1.00 | 0.62 | 0.78 | 0.91 | 0.97 | 1.00 | 0.72 | 0.93 | 1.00 | 1.00 | 1.00 | 0.62 | 0.77 | 0.90 | 0.98 | 1.00 |
| 142 | 0.7 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.81 | 0.89 | 0.97 | 0.99 | 1.00 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 0.81 | 0.89 | 0.97 | 0.99 | 1.00 |
| 143 | 0.7 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.82 | 0.90 | 0.96 | 0.99 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.81 | 0.90 | 0.97 | 0.99 | 1.00 |
| 144 | 0.7 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.87 | 0.96 | 0.99 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.86 | 0.96 | 1.00 | 1.00 | 1.00 |
| 145 | 0.7 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 | 0.91 | 0.97 | 0.99 | 1.00 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 | 0.91 | 0.97 | 0.99 | 1.00 |
| 146 | 0.1 | 0.09 | 0.09 | 0.10 | 0.17 | 0.35 | 0.08 | 0.07 | 0.09 | 0.11 | 0.20 | 0.09 | 0.08 | 0.10 | 0.16 | 0.35 | 0.08 | 0.08 | 0.09 | 0.11 | 0.21 |
| 147 | 0.1 | 0.08 | 0.09 | 0.09 | 0.17 | 0.35 | 0.06 | 0.07 | 0.08 | 0.11 | 0.21 | 0.09 | 0.09 | 0.09 | 0.17 | 0.34 | 0.07 | 0.07 | 0.08 | 0.11 | 0.21 |
| 148 | 0.1 | 0.07 | 0.08 | 0.12 | 0.16 | 0.35 | 0.08 | 0.08 | 0.09 | 0.10 | 0.21 | 0.08 | 0.07 | 0.12 | 0.16 | 0.35 | 0.07 | 0.08 | 0.09 | 0.10 | 0.21 |
| 149 | 0.1 | 0.07 | 0.08 | 0.13 | 0.15 | 0.34 | 0.07 | 0.08 | 0.09 | 0.11 | 0.19 | 0.07 | 0.09 | 0.13 | 0.16 | 0.34 | 0.07 | 0.08 | 0.10 | 0.11 | 0.19 |
| 150 | 0.1 | 0.07 | 0.09 | 0.14 | 0.18 | 0.34 | 0.07 | 0.06 | 0.07 | 0.12 | 0.21 | 0.07 | 0.09 | 0.13 | 0.19 | 0.34 | 0.08 | 0.06 | 0.07 | 0.12 | 0.21 |

**Table 19. Average power values for Level-2 parameters based on re-sampled sample sizes for conditions 151 - 224. Minimum power between 0.80 and 0.90 highlighted in light green and greater than 0.90 highlighted in dark green.**

| | | $\beta_{00}$ | | | | | $\beta_{01}$ | | | | | $\beta_{10}$ | | | | | $\beta_{11}$ | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Extrapolated Sample Size | | | | | | | | | | | | | | | | | | | |
| Condition | Effect Size | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 |
| 151 | 0.1 | 0.08 | 0.08 | 0.11 | 0.18 | 0.36 | 0.05 | 0.08 | 0.08 | 0.10 | 0.20 | 0.07 | 0.08 | 0.11 | 0.18 | 0.35 | 0.06 | 0.07 | 0.08 | 0.11 | 0.21 |
| 152 | 0.1 | 0.07 | 0.09 | 0.10 | 0.19 | 0.33 | 0.08 | 0.07 | 0.08 | 0.10 | 0.23 | 0.07 | 0.09 | 0.10 | 0.18 | 0.33 | 0.08 | 0.07 | 0.08 | 0.10 | 0.22 |
| 153 | 0.1 | 0.09 | 0.08 | 0.12 | 0.18 | 0.36 | 0.07 | 0.07 | 0.09 | 0.13 | 0.19 | 0.09 | 0.08 | 0.11 | 0.17 | 0.36 | 0.07 | 0.07 | 0.09 | 0.14 | 0.19 |
| 154 | 0.1 | 0.10 | 0.11 | 0.20 | 0.30 | 0.63 | 0.07 | 0.07 | 0.12 | 0.19 | 0.35 | 0.11 | 0.11 | 0.20 | 0.30 | 0.62 | 0.08 | 0.07 | 0.11 | 0.19 | 0.36 |
| 155 | 0.1 | 0.11 | 0.12 | 0.18 | 0.29 | 0.60 | 0.07 | 0.10 | 0.10 | 0.15 | 0.34 | 0.10 | 0.12 | 0.17 | 0.29 | 0.60 | 0.08 | 0.10 | 0.11 | 0.16 | 0.34 |
| 156 | 0.1 | 0.10 | 0.12 | 0.15 | 0.28 | 0.62 | 0.10 | 0.10 | 0.11 | 0.17 | 0.34 | 0.10 | 0.12 | 0.16 | 0.28 | 0.61 | 0.09 | 0.09 | 0.11 | 0.16 | 0.34 |
| 157 | 0.1 | 0.10 | 0.13 | 0.16 | 0.27 | 0.61 | 0.07 | 0.08 | 0.09 | 0.15 | 0.32 | 0.09 | 0.12 | 0.16 | 0.27 | 0.62 | 0.07 | 0.08 | 0.10 | 0.14 | 0.32 |
| 158 | 0.1 | 0.10 | 0.12 | 0.17 | 0.31 | 0.65 | 0.06 | 0.10 | 0.12 | 0.19 | 0.33 | 0.10 | 0.12 | 0.17 | 0.31 | 0.64 | 0.06 | 0.10 | 0.11 | 0.18 | 0.33 |
| 159 | 0.1 | 0.10 | 0.11 | 0.20 | 0.28 | 0.61 | 0.08 | 0.09 | 0.11 | 0.17 | 0.36 | 0.10 | 0.11 | 0.19 | 0.28 | 0.62 | 0.07 | 0.09 | 0.10 | 0.17 | 0.37 |
| 160 | 0.1 | 0.10 | 0.13 | 0.16 | 0.27 | 0.61 | 0.09 | 0.08 | 0.12 | 0.17 | 0.35 | 0.10 | 0.12 | 0.16 | 0.27 | 0.61 | 0.09 | 0.07 | 0.12 | 0.17 | 0.36 |
| 161 | 0.1 | 0.10 | 0.11 | 0.18 | 0.29 | 0.60 | 0.08 | 0.09 | 0.09 | 0.17 | 0.34 | 0.10 | 0.12 | 0.19 | 0.28 | 0.59 | 0.07 | 0.09 | 0.09 | 0.18 | 0.34 |
| 162 | 0.3 | 0.21 | 0.34 | 0.53 | 0.84 | 1.00 | 0.14 | 0.19 | 0.31 | 0.53 | 0.75 | 0.21 | 0.34 | 0.54 | 0.84 | 1.00 | 0.14 | 0.19 | 0.32 | 0.53 | 0.75 |
| 163 | 0.3 | 0.20 | 0.34 | 0.56 | 0.84 | 1.00 | 0.12 | 0.18 | 0.32 | 0.51 | 0.79 | 0.20 | 0.32 | 0.57 | 0.84 | 1.00 | 0.13 | 0.18 | 0.32 | 0.52 | 0.79 |
| 164 | 0.3 | 0.22 | 0.32 | 0.54 | 0.85 | 1.00 | 0.13 | 0.20 | 0.33 | 0.51 | 0.85 | 0.23 | 0.32 | 0.54 | 0.85 | 1.00 | 0.14 | 0.19 | 0.33 | 0.51 | 0.85 |
| 165 | 0.3 | 0.22 | 0.31 | 0.56 | 0.84 | 1.00 | 0.15 | 0.19 | 0.28 | 0.51 | 0.78 | 0.23 | 0.30 | 0.56 | 0.84 | 1.00 | 0.16 | 0.19 | 0.28 | 0.51 | 0.78 |
| 166 | 0.3 | 0.21 | 0.34 | 0.54 | 0.87 | 1.00 | 0.15 | 0.20 | 0.30 | 0.53 | 0.86 | 0.22 | 0.33 | 0.55 | 0.87 | 1.00 | 0.15 | 0.19 | 0.30 | 0.52 | 0.86 |
| 167 | 0.3 | 0.21 | 0.32 | 0.55 | 0.84 | 1.00 | 0.14 | 0.16 | 0.32 | 0.53 | 0.89 | 0.22 | 0.32 | 0.56 | 0.85 | 1.00 | 0.14 | 0.16 | 0.33 | 0.52 | 0.88 |
| 168 | 0.3 | 0.22 | 0.31 | 0.55 | 0.84 | 1.00 | 0.13 | 0.19 | 0.33 | 0.54 | 0.86 | 0.22 | 0.32 | 0.53 | 0.85 | 1.00 | 0.13 | 0.20 | 0.33 | 0.54 | 0.85 |
| 169 | 0.3 | 0.23 | 0.31 | 0.55 | 0.85 | 1.00 | 0.15 | 0.20 | 0.33 | 0.55 | 0.86 | 0.22 | 0.32 | 0.56 | 0.85 | 1.00 | 0.15 | 0.19 | 0.33 | 0.55 | 0.85 |
| 170 | 0.3 | 0.38 | 0.54 | 0.85 | 0.99 | 1.00 | 0.20 | 0.31 | 0.51 | 0.70 | 0.91 | 0.37 | 0.53 | 0.85 | 0.99 | 1.00 | 0.20 | 0.31 | 0.50 | 0.70 | 0.91 |
| 171 | 0.3 | 0.36 | 0.53 | 0.86 | 0.99 | 1.00 | 0.23 | 0.31 | 0.51 | 0.70 | 0.89 | 0.37 | 0.52 | 0.85 | 0.99 | 1.00 | 0.24 | 0.32 | 0.51 | 0.70 | 0.89 |
| 172 | 0.3 | 0.36 | 0.56 | 0.85 | 0.98 | 1.00 | 0.22 | 0.30 | 0.52 | 0.77 | 0.96 | 0.35 | 0.55 | 0.85 | 0.99 | 1.00 | 0.21 | 0.30 | 0.52 | 0.77 | 0.96 |
| 173 | 0.3 | 0.35 | 0.55 | 0.85 | 0.98 | 1.00 | 0.22 | 0.28 | 0.48 | 0.71 | 0.91 | 0.35 | 0.53 | 0.85 | 0.98 | 1.00 | 0.21 | 0.28 | 0.48 | 0.71 | 0.91 |
| 174 | 0.3 | 0.35 | 0.54 | 0.85 | 0.98 | 1.00 | 0.25 | 0.29 | 0.53 | 0.80 | 0.97 | 0.37 | 0.54 | 0.85 | 0.99 | 1.00 | 0.25 | 0.29 | 0.53 | 0.80 | 0.97 |
| 175 | 0.3 | 0.37 | 0.55 | 0.85 | 0.99 | 1.00 | 0.22 | 0.32 | 0.53 | 0.80 | 0.98 | 0.34 | 0.57 | 0.85 | 0.99 | 1.00 | 0.22 | 0.32 | 0.53 | 0.81 | 0.97 |
| 176 | 0.3 | 0.36 | 0.54 | 0.84 | 0.99 | 1.00 | 0.21 | 0.31 | 0.54 | 0.76 | 0.97 | 0.36 | 0.54 | 0.83 | 0.99 | 1.00 | 0.21 | 0.30 | 0.54 | 0.77 | 0.97 |
| 177 | 0.3 | 0.39 | 0.54 | 0.84 | 0.99 | 1.00 | 0.22 | 0.32 | 0.52 | 0.78 | 0.98 | 0.37 | 0.55 | 0.85 | 0.99 | 1.00 | 0.22 | 0.32 | 0.53 | 0.79 | 0.98 |
| 178 | 0.7 | 0.75 | 0.92 | 1.00 | 1.00 | 1.00 | 0.43 | 0.60 | 0.81 | 0.92 | 0.98 | 0.75 | 0.91 | 1.00 | 1.00 | 1.00 | 0.43 | 0.59 | 0.81 | 0.93 | 0.98 |
| 179 | 0.7 | 0.72 | 0.92 | 1.00 | 1.00 | 1.00 | 0.44 | 0.59 | 0.80 | 0.93 | 0.99 | 0.72 | 0.92 | 1.00 | 1.00 | 1.00 | 0.42 | 0.58 | 0.80 | 0.93 | 0.99 |
| 180 | 0.7 | 0.75 | 0.92 | 1.00 | 1.00 | 1.00 | 0.43 | 0.61 | 0.80 | 0.92 | 0.98 | 0.74 | 0.92 | 1.00 | 1.00 | 1.00 | 0.41 | 0.61 | 0.80 | 0.92 | 0.98 |
| 181 | 0.7 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 | 0.59 | 0.76 | 0.93 | 0.97 | 1.00 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 | 0.60 | 0.76 | 0.92 | 0.97 | 1.00 |
| 182 | 0.7 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.64 | 0.78 | 0.91 | 0.98 | 1.00 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.64 | 0.78 | 0.91 | 0.98 | 1.00 |
| 183 | 0.7 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 0.68 | 0.86 | 0.97 | 1.00 | 1.00 | 0.93 | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 | 0.87 | 0.97 | 1.00 | 1.00 |
| 184 | 0.7 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 0.61 | 0.78 | 0.90 | 0.97 | 1.00 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 0.61 | 0.78 | 0.90 | 0.97 | 1.00 |
| 185 | 0.7 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 | 0.83 | 0.97 | 1.00 | 1.00 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 | 0.83 | 0.97 | 1.00 | 1.00 |
| 186 | 0.7 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.65 | 0.85 | 0.97 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 | 0.66 | 0.84 | 0.97 | 1.00 | 1.00 |
| 187 | 0.1 | 0.09 | 0.08 | 0.11 | 0.19 | 0.33 | 0.07 | 0.09 | 0.09 | 0.10 | 0.19 | 0.09 | 0.08 | 0.11 | 0.20 | 0.34 | 0.07 | 0.09 | 0.09 | 0.11 | 0.19 |
| 188 | 0.1 | 0.07 | 0.09 | 0.11 | 0.16 | 0.37 | 0.06 | 0.06 | 0.09 | 0.10 | 0.20 | 0.06 | 0.08 | 0.10 | 0.16 | 0.37 | 0.07 | 0.08 | 0.09 | 0.11 | 0.20 |
| 189 | 0.1 | 0.08 | 0.09 | 0.13 | 0.18 | 0.34 | 0.06 | 0.08 | 0.07 | 0.11 | 0.22 | 0.08 | 0.08 | 0.13 | 0.18 | 0.34 | 0.06 | 0.08 | 0.07 | 0.11 | 0.22 |
| 190 | 0.1 | 0.07 | 0.07 | 0.10 | 0.16 | 0.36 | 0.07 | 0.09 | 0.09 | 0.10 | 0.19 | 0.07 | 0.07 | 0.10 | 0.16 | 0.36 | 0.07 | 0.08 | 0.09 | 0.10 | 0.20 |
| 191 | 0.1 | 0.09 | 0.08 | 0.11 | 0.17 | 0.35 | 0.07 | 0.07 | 0.08 | 0.10 | 0.18 | 0.08 | 0.08 | 0.11 | 0.18 | 0.35 | 0.06 | 0.07 | 0.07 | 0.10 | 0.18 |
| 192 | 0.1 | 0.09 | 0.10 | 0.12 | 0.16 | 0.33 | 0.05 | 0.08 | 0.07 | 0.11 | 0.21 | 0.08 | 0.09 | 0.12 | 0.17 | 0.33 | 0.06 | 0.08 | 0.08 | 0.11 | 0.21 |
| 193 | 0.1 | 0.08 | 0.08 | 0.11 | 0.16 | 0.38 | 0.07 | 0.07 | 0.08 | 0.10 | 0.23 | 0.09 | 0.09 | 0.10 | 0.16 | 0.38 | 0.07 | 0.07 | 0.08 | 0.11 | 0.23 |
| 194 | 0.1 | 0.10 | 0.07 | 0.11 | 0.14 | 0.35 | 0.07 | 0.07 | 0.08 | 0.10 | 0.20 | 0.09 | 0.07 | 0.12 | 0.15 | 0.35 | 0.06 | 0.07 | 0.08 | 0.10 | 0.20 |
| 195 | 0.1 | 0.08 | 0.13 | 0.17 | 0.29 | 0.60 | 0.07 | 0.09 | 0.12 | 0.17 | 0.33 | 0.08 | 0.12 | 0.18 | 0.29 | 0.61 | 0.07 | 0.08 | 0.12 | 0.17 | 0.34 |
| 196 | 0.1 | 0.08 | 0.10 | 0.17 | 0.26 | 0.61 | 0.08 | 0.08 | 0.11 | 0.15 | 0.33 | 0.09 | 0.09 | 0.17 | 0.27 | 0.60 | 0.07 | 0.08 | 0.11 | 0.15 | 0.33 |
| 197 | 0.1 | 0.11 | 0.12 | 0.18 | 0.29 | 0.61 | 0.10 | 0.09 | 0.12 | 0.18 | 0.34 | 0.11 | 0.11 | 0.17 | 0.30 | 0.60 | 0.09 | 0.08 | 0.12 | 0.18 | 0.34 |
| 198 | 0.1 | 0.08 | 0.10 | 0.16 | 0.28 | 0.59 | 0.08 | 0.09 | 0.13 | 0.15 | 0.36 | 0.08 | 0.10 | 0.16 | 0.28 | 0.59 | 0.07 | 0.09 | 0.12 | 0.15 | 0.36 |
| 199 | 0.1 | 0.08 | 0.12 | 0.17 | 0.29 | 0.61 | 0.07 | 0.09 | 0.10 | 0.18 | 0.35 | 0.08 | 0.13 | 0.18 | 0.30 | 0.60 | 0.06 | 0.09 | 0.09 | 0.18 | 0.34 |
| 200 | 0.1 | 0.11 | 0.11 | 0.19 | 0.30 | 0.61 | 0.08 | 0.08 | 0.10 | 0.18 | 0.37 | 0.11 | 0.11 | 0.18 | 0.30 | 0.61 | 0.08 | 0.07 | 0.10 | 0.18 | 0.38 |
| 201 | 0.1 | 0.10 | 0.11 | 0.16 | 0.29 | 0.61 | 0.07 | 0.08 | 0.11 | 0.15 | 0.37 | 0.09 | 0.11 | 0.16 | 0.29 | 0.61 | 0.07 | 0.08 | 0.10 | 0.15 | 0.36 |
| 202 | 0.1 | 0.09 | 0.11 | 0.19 | 0.32 | 0.61 | 0.08 | 0.08 | 0.11 | 0.17 | 0.36 | 0.09 | 0.11 | 0.19 | 0.32 | 0.61 | 0.08 | 0.08 | 0.12 | 0.17 | 0.36 |
| 203 | 0.3 | 0.24 | 0.33 | 0.56 | 0.85 | 1.00 | 0.14 | 0.19 | 0.32 | 0.51 | 0.79 | 0.23 | 0.33 | 0.55 | 0.85 | 1.00 | 0.13 | 0.17 | 0.32 | 0.51 | 0.79 |
| 204 | 0.3 | 0.22 | 0.31 | 0.56 | 0.84 | 0.99 | 0.14 | 0.16 | 0.31 | 0.48 | 0.78 | 0.21 | 0.30 | 0.56 | 0.84 | 0.99 | 0.14 | 0.17 | 0.31 | 0.49 | 0.78 |
| 205 | 0.3 | 0.22 | 0.32 | 0.56 | 0.82 | 0.99 | 0.14 | 0.18 | 0.32 | 0.52 | 0.85 | 0.22 | 0.31 | 0.58 | 0.83 | 0.99 | 0.12 | 0.17 | 0.33 | 0.52 | 0.85 |
| 206 | 0.3 | 0.21 | 0.30 | 0.56 | 0.84 | 1.00 | 0.14 | 0.20 | 0.32 | 0.53 | 0.79 | 0.22 | 0.30 | 0.57 | 0.84 | 1.00 | 0.13 | 0.20 | 0.31 | 0.53 | 0.79 |
| 207 | 0.3 | 0.23 | 0.32 | 0.57 | 0.85 | 1.00 | 0.14 | 0.19 | 0.32 | 0.54 | 0.85 | 0.23 | 0.32 | 0.57 | 0.85 | 1.00 | 0.14 | 0.19 | 0.33 | 0.54 | 0.85 |
| 208 | 0.3 | 0.22 | 0.32 | 0.56 | 0.85 | 1.00 | 0.17 | 0.17 | 0.32 | 0.53 | 0.86 | 0.21 | 0.32 | 0.56 | 0.84 | 1.00 | 0.16 | 0.18 | 0.31 | 0.53 | 0.86 |
| 209 | 0.3 | 0.23 | 0.33 | 0.59 | 0.86 | 1.00 | 0.15 | 0.19 | 0.33 | 0.55 | 0.85 | 0.23 | 0.32 | 0.59 | 0.85 | 1.00 | 0.14 | 0.19 | 0.33 | 0.55 | 0.86 |
| 210 | 0.3 | 0.21 | 0.35 | 0.54 | 0.85 | 1.00 | 0.13 | 0.19 | 0.32 | 0.55 | 0.86 | 0.21 | 0.34 | 0.54 | 0.86 | 1.00 | 0.13 | 0.18 | 0.32 | 0.55 | 0.86 |
| 211 | 0.3 | 0.37 | 0.55 | 0.85 | 0.99 | 1.00 | 0.21 | 0.32 | 0.51 | 0.70 | 0.91 | 0.38 | 0.54 | 0.85 | 0.99 | 1.00 | 0.20 | 0.32 | 0.51 | 0.69 | 0.91 |
| 212 | 0.3 | 0.36 | 0.56 | 0.86 | 0.99 | 1.00 | 0.20 | 0.32 | 0.51 | 0.73 | 0.91 | 0.36 | 0.56 | 0.85 | 0.99 | 1.00 | 0.20 | 0.32 | 0.51 | 0.73 | 0.92 |
| 213 | 0.3 | 0.37 | 0.55 | 0.86 | 0.99 | 1.00 | 0.23 | 0.30 | 0.53 | 0.80 | 0.96 | 0.36 | 0.55 | 0.86 | 0.99 | 1.00 | 0.21 | 0.31 | 0.51 | 0.80 | 0.96 |
| 214 | 0.3 | 0.35 | 0.52 | 0.84 | 0.98 | 1.00 | 0.21 | 0.34 | 0.51 | 0.72 | 0.90 | 0.36 | 0.52 | 0.84 | 0.98 | 1.00 | 0.20 | 0.33 | 0.50 | 0.72 | 0.90 |
| 215 | 0.3 | 0.36 | 0.54 | 0.83 | 0.99 | 1.00 | 0.25 | 0.30 | 0.53 | 0.78 | 0.97 | 0.35 | 0.54 | 0.82 | 0.99 | 1.00 | 0.25 | 0.30 | 0.53 | 0.78 | 0.97 |
| 216 | 0.3 | 0.36 | 0.55 | 0.85 | 0.98 | 1.00 | 0.21 | 0.30 | 0.54 | 0.81 | 0.98 | 0.35 | 0.54 | 0.85 | 0.98 | 1.00 | 0.22 | 0.31 | 0.54 | 0.81 | 0.98 |
| 217 | 0.3 | 0.35 | 0.54 | 0.86 | 0.99 | 1.00 | 0.22 | 0.30 | 0.52 | 0.78 | 0.97 | 0.35 | 0.55 | 0.86 | 0.99 | 1.00 | 0.22 | 0.30 | 0.51 | 0.77 | 0.97 |
| 218 | 0.3 | 0.36 | 0.55 | 0.85 | 0.99 | 1.00 | 0.21 | 0.34 | 0.52 | 0.81 | 0.99 | 0.37 | 0.55 | 0.85 | 0.99 | 1.00 | 0.20 | 0.33 | 0.52 | 0.81 | 0.99 |
| 219 | 0.7 | 0.75 | 0.92 | 1.00 | 1.00 | 1.00 | 0.44 | 0.59 | 0.79 | 0.92 | 0.98 | 0.75 | 0.92 | 1.00 | 1.00 | 1.00 | 0.43 | 0.60 | 0.79 | 0.92 | 0.98 |
| 220 | 0.7 | 0.73 | 0.93 | 1.00 | 1.00 | 1.00 | 0.45 | 0.59 | 0.77 | 0.92 | 0.98 | 0.74 | 0.93 | 1.00 | 1.00 | 1.00 | 0.45 | 0.58 | 0.78 | 0.92 | 0.98 |
| 221 | 0.7 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 0.60 | 0.80 | 0.92 | 0.98 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.61 | 0.80 | 0.92 | 0.98 | 1.00 |
| 222 | 0.7 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.63 | 0.77 | 0.91 | 0.97 | 1.00 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.63 | 0.77 | 0.91 | 0.97 | 1.00 |
| 223 | 0.7 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.66 | 0.85 | 0.97 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 | 0.85 | 0.97 | 0.99 | 1.00 |
| 224 | 0.7 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 | 0.64 | 0.82 | 0.92 | 0.98 | 1.00 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 | 0.65 | 0.81 | 0.92 | 0.98 | 1.00 |

The accuracy of the Level-2 parameter estimates is indicated by the absolute relative bias (Tables 20 to 22 and Figures 33 to 36). As effect size increases from 0.1 to 0.7, the absolute relative bias decreases for all predictor and error variance scenarios considered. For initial error variance $\sigma_e^2 = 1.0$ the absolute relative bias (Figures 33 to 36 left-hand side) is less than initial error variance $\sigma_e^2 = 2.0$ (Figures 33 to 36: right-hand side) and most noticeable for effect size 0.7 (Figures: 33 to 36: shown in green).

Though the Level-2 parameters achieved minimum sufficient power of 0.80 with fewer re-sampled samples at each level for initial error variance $\sigma_e^2 = 2.0$ and effect size 0.3 and 0.7, the associated parameters when re-sampled to larger sample sizes had larger absolute relative bias. Whereas, initial error variance $\sigma_e^2 = 1.0$ required more samples per level, the associated parameters when re-sampled to larger sample sizes had smaller absolute relative bias overall. For example, for initial error variance $\sigma_e^2 = 1.0$, and predictor variances $\sigma_A^2 = 1.0$ and $\sigma_X^2 = 1.0$, the absolute relative bias is about 0.70 (Table: 20 line 56), whereas for initial error variance $\sigma_e^2 = 2.0$ bias is 0.85 (Table: 20 line 58). The specific overall Level-2 parameter average absolute relative bias values by condition, are provided in Tables 20 to 22. The average absolute relative bias remains fairly consistent across re-sampled sample sizes and ranges from about 0.60 to 0.95.

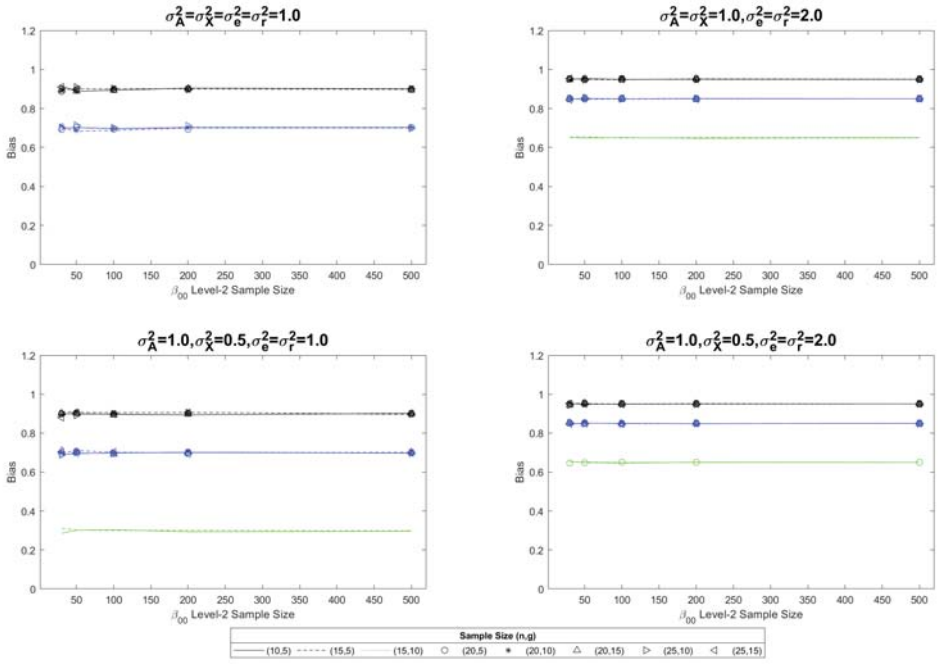


**Figure 33. Level-2 $\beta_{00}$ re-sampled sample size bias results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios $\sigma_A^2 = \sigma_X^2 = 1.0$ (top) and $\sigma_A^2 = 1.0$, $\sigma_X^2 = 0.5$ (bottom) with initial error variance $\sigma_e^2 = \sigma_r^2 = 1$.**

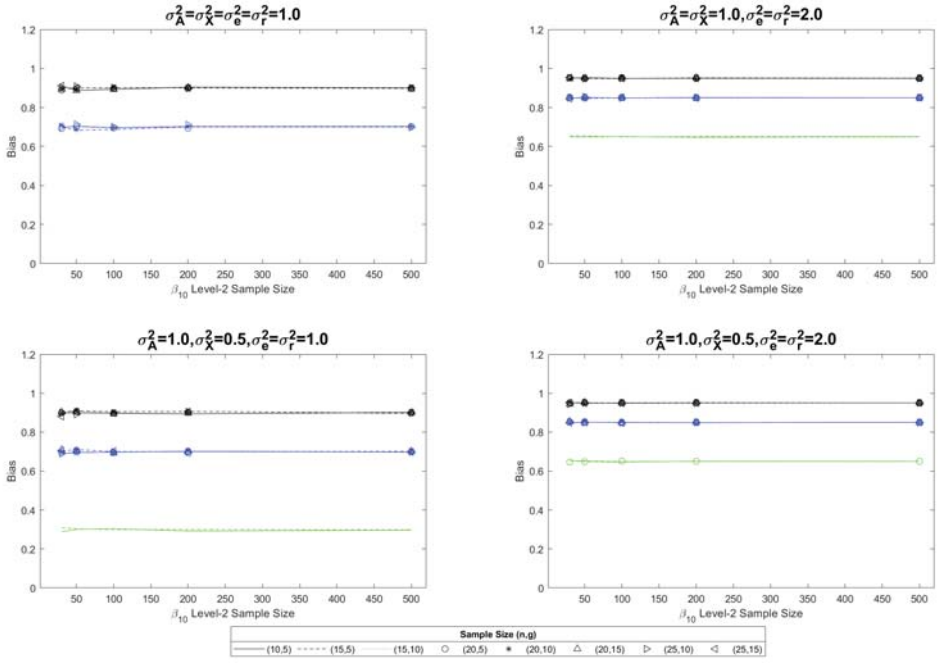


**Figure 34. Level-2 $\beta_{10}$ re-sampled sample size bias results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios $\sigma_A^2 = \sigma_X^2 = 1.0$ (top) and $\sigma_A^2 = 1.0$, $\sigma_X^2 = 0.5$ (bottom) with initial error variance $\sigma_e^2 = \sigma_r^2 = 1$.**

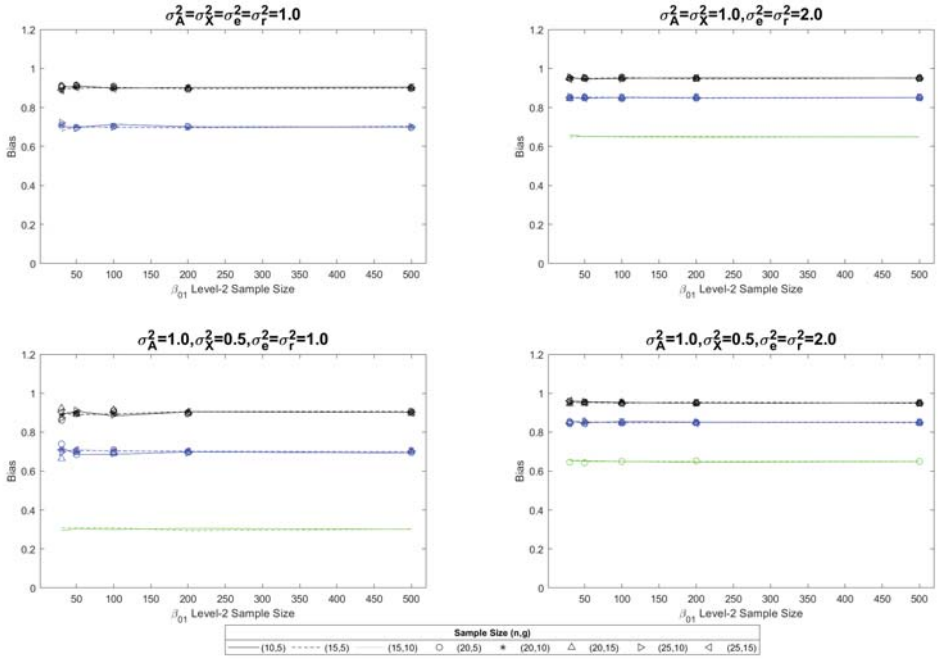


**Figure 35. Level-2 $\beta_{01}$ re-sampeld sample size bias results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios $\sigma_A^2 = \sigma_X^2 = 1.0$ (top) and $\sigma_A^2 = 1.0$, $\sigma_X^2 = 0.5$ (bottom) with initial error variance $\sigma_e^2 = \sigma_r^2 = 1$.**

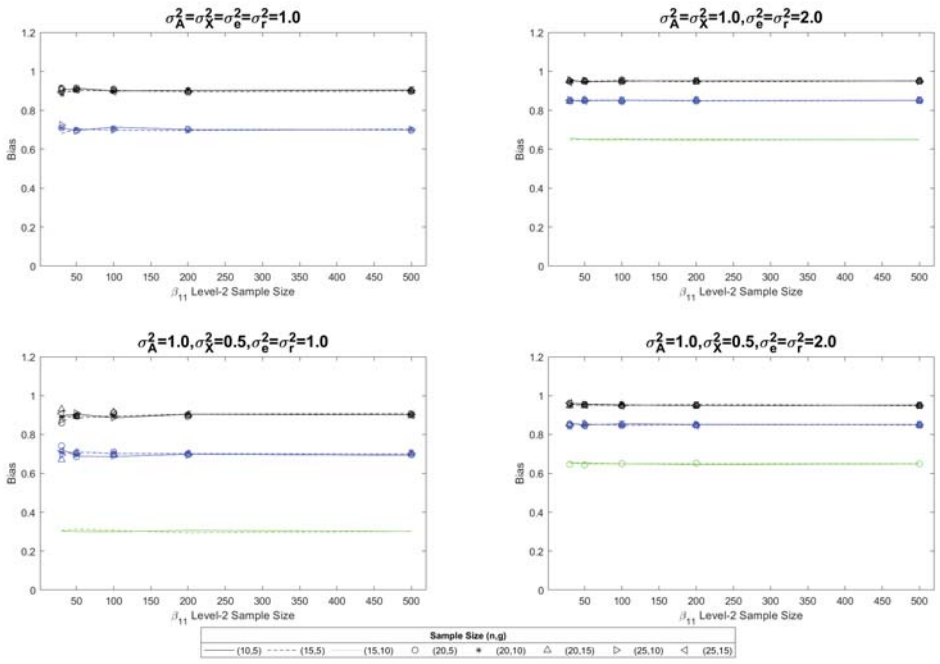


**Figure 36. Level-2 $\beta_{11}$ re-sampled sample size bias results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios $\sigma_A^2 = \sigma_X^2 = 1.0$ (top) and $\sigma_A^2 = 1.0$, $\sigma_X^2 = 0.5$ (bottom) with initial error variance $\sigma_e^2 = \sigma_r^2 = 1$.**

**Table 20. Average absolute relative bias values for Level-2 parameters based on the re-sampled sample sizes for conditions 1 - 75.**

| | | Level-2 Parameter Absolute Relative Percentage Bias | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $\beta_{00}$ | | | | | $\beta_{01}$ | | | | | $\beta_{10}$ | | | | | $\beta_{11}$ | | | | |
| | Effect Size | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 |
| 1 | 0.1 | 0.901 | 0.896 | 0.899 | 0.900 | 0.901 | 0.901 | 0.896 | 0.913 | 0.888 | 0.900 | 0.898 | 0.896 | 0.899 | 0.900 | 0.901 | 0.900 | 0.896 | 0.913 | 0.889 | 0.900 |
| 2 | 0.1 | 0.894 | 0.899 | 0.897 | 0.895 | 0.899 | 0.890 | 0.898 | 0.893 | 0.903 | 0.898 | 0.895 | 0.899 | 0.896 | 0.894 | 0.899 | 0.889 | 0.898 | 0.892 | 0.902 | 0.898 |
| 3 | 0.1 | 0.901 | 0.901 | 0.902 | 0.905 | 0.902 | 0.902 | 0.901 | 0.897 | 0.899 | 0.900 | 0.904 | 0.901 | 0.902 | 0.905 | 0.902 | 0.901 | 0.900 | 0.897 | 0.899 | 0.901 |
| 4 | 0.1 | 0.892 | 0.903 | 0.901 | 0.904 | 0.904 | 0.905 | 0.903 | 0.899 | 0.899 | 0.899 | 0.895 | 0.904 | 0.902 | 0.904 | 0.904 | 0.903 | 0.902 | 0.898 | 0.899 | 0.899 |
| 5 | 0.1 | 0.897 | 0.892 | 0.903 | 0.905 | 0.900 | 0.910 | 0.898 | 0.891 | 0.888 | 0.904 | 0.898 | 0.891 | 0.903 | 0.905 | 0.900 | 0.913 | 0.901 | 0.891 | 0.887 | 0.904 |
| 6 | 0.1 | 0.889 | 0.903 | 0.906 | 0.901 | 0.900 | 0.896 | 0.889 | 0.903 | 0.901 | 0.898 | 0.889 | 0.904 | 0.906 | 0.900 | 0.900 | 0.900 | 0.890 | 0.903 | 0.901 | 0.898 |
| 7 | 0.1 | 0.900 | 0.906 | 0.898 | 0.895 | 0.900 | 0.905 | 0.893 | 0.897 | 0.897 | 0.902 | 0.899 | 0.905 | 0.898 | 0.895 | 0.900 | 0.906 | 0.893 | 0.897 | 0.898 | 0.902 |
| 8 | 0.1 | 0.893 | 0.893 | 0.907 | 0.901 | 0.897 | 0.882 | 0.904 | 0.901 | 0.904 | 0.902 | 0.893 | 0.894 | 0.907 | 0.901 | 0.897 | 0.886 | 0.905 | 0.901 | 0.904 | 0.902 |
| 9 | 0.1 | 0.949 | 0.945 | 0.951 | 0.950 | 0.950 | 0.946 | 0.950 | 0.949 | 0.952 | 0.950 | 0.950 | 0.945 | 0.951 | 0.950 | 0.950 | 0.945 | 0.949 | 0.949 | 0.952 | 0.950 |
| 10 | 0.1 | 0.950 | 0.949 | 0.948 | 0.951 | 0.950 | 0.947 | 0.953 | 0.949 | 0.949 | 0.952 | 0.950 | 0.949 | 0.948 | 0.951 | 0.950 | 0.948 | 0.952 | 0.950 | 0.949 | 0.952 |
| 11 | 0.1 | 0.946 | 0.953 | 0.950 | 0.950 | 0.950 | 0.955 | 0.946 | 0.949 | 0.953 | 0.950 | 0.946 | 0.953 | 0.950 | 0.950 | 0.950 | 0.954 | 0.946 | 0.949 | 0.952 | 0.950 |
| 12 | 0.1 | 0.947 | 0.948 | 0.953 | 0.949 | 0.951 | 0.949 | 0.954 | 0.948 | 0.949 | 0.948 | 0.948 | 0.948 | 0.953 | 0.949 | 0.951 | 0.951 | 0.955 | 0.949 | 0.949 | 0.948 |
| 13 | 0.1 | 0.952 | 0.947 | 0.950 | 0.950 | 0.950 | 0.950 | 0.952 | 0.949 | 0.953 | 0.948 | 0.951 | 0.947 | 0.951 | 0.950 | 0.950 | 0.952 | 0.952 | 0.950 | 0.953 | 0.948 |
| 14 | 0.1 | 0.954 | 0.950 | 0.949 | 0.950 | 0.950 | 0.952 | 0.951 | 0.951 | 0.950 | 0.950 | 0.952 | 0.951 | 0.949 | 0.950 | 0.950 | 0.951 | 0.949 | 0.950 | 0.950 | 0.950 |
| 15 | 0.1 | 0.950 | 0.950 | 0.949 | 0.949 | 0.950 | 0.945 | 0.948 | 0.949 | 0.950 | 0.951 | 0.951 | 0.950 | 0.949 | 0.949 | 0.950 | 0.947 | 0.949 | 0.948 | 0.950 | 0.951 |
| 16 | 0.1 | 0.951 | 0.948 | 0.951 | 0.951 | 0.950 | 0.947 | 0.947 | 0.954 | 0.952 | 0.951 | 0.950 | 0.948 | 0.951 | 0.951 | 0.950 | 0.947 | 0.947 | 0.954 | 0.952 | 0.952 |
| 17 | 0.3 | 0.694 | 0.707 | 0.696 | 0.702 | 0.700 | 0.707 | 0.702 | 0.715 | 0.703 | 0.702 | 0.694 | 0.708 | 0.695 | 0.702 | 0.700 | 0.708 | 0.703 | 0.714 | 0.703 | 0.702 |
| 18 | 0.3 | 0.678 | 0.695 | 0.700 | 0.696 | 0.701 | 0.700 | 0.707 | 0.707 | 0.706 | 0.693 | 0.680 | 0.693 | 0.699 | 0.696 | 0.700 | 0.699 | 0.709 | 0.707 | 0.706 | 0.693 |
| 19 | 0.3 | 0.688 | 0.699 | 0.694 | 0.699 | 0.700 | 0.690 | 0.700 | 0.716 | 0.705 | 0.699 | 0.688 | 0.701 | 0.694 | 0.698 | 0.700 | 0.693 | 0.700 | 0.716 | 0.705 | 0.699 |
| 20 | 0.3 | 0.700 | 0.693 | 0.697 | 0.703 | 0.700 | 0.690 | 0.698 | 0.699 | 0.706 | 0.700 | 0.701 | 0.694 | 0.698 | 0.703 | 0.701 | 0.690 | 0.699 | 0.699 | 0.706 | 0.699 |
| 21 | 0.3 | 0.690 | 0.704 | 0.698 | 0.698 | 0.700 | 0.721 | 0.696 | 0.693 | 0.698 | 0.701 | 0.692 | 0.703 | 0.699 | 0.699 | 0.700 | 0.720 | 0.695 | 0.692 | 0.699 | 0.701 |
| 22 | 0.3 | 0.697 | 0.705 | 0.703 | 0.703 | 0.704 | 0.686 | 0.696 | 0.692 | 0.701 | 0.697 | 0.698 | 0.705 | 0.705 | 0.703 | 0.704 | 0.688 | 0.696 | 0.693 | 0.701 | 0.697 |
| 23 | 0.3 | 0.713 | 0.697 | 0.694 | 0.699 | 0.697 | 0.708 | 0.693 | 0.694 | 0.703 | 0.700 | 0.710 | 0.695 | 0.693 | 0.699 | 0.697 | 0.706 | 0.694 | 0.694 | 0.702 | 0.700 |
| 24 | 0.3 | 0.848 | 0.852 | 0.850 | 0.851 | 0.850 | 0.850 | 0.855 | 0.847 | 0.853 | 0.850 | 0.847 | 0.852 | 0.850 | 0.851 | 0.850 | 0.848 | 0.854 | 0.847 | 0.853 | 0.850 |
| 25 | 0.3 | 0.847 | 0.851 | 0.849 | 0.849 | 0.849 | 0.851 | 0.860 | 0.847 | 0.850 | 0.850 | 0.845 | 0.852 | 0.849 | 0.849 | 0.849 | 0.851 | 0.861 | 0.847 | 0.850 | 0.850 |
| 26 | 0.3 | 0.852 | 0.850 | 0.849 | 0.850 | 0.850 | 0.850 | 0.851 | 0.848 | 0.851 | 0.850 | 0.853 | 0.850 | 0.849 | 0.850 | 0.850 | 0.850 | 0.851 | 0.848 | 0.851 | 0.850 |
| 27 | 0.3 | 0.850 | 0.845 | 0.852 | 0.850 | 0.850 | 0.845 | 0.849 | 0.848 | 0.849 | 0.850 | 0.850 | 0.845 | 0.852 | 0.850 | 0.850 | 0.846 | 0.850 | 0.848 | 0.849 | 0.850 |
| 28 | 0.3 | 0.854 | 0.852 | 0.850 | 0.851 | 0.850 | 0.853 | 0.850 | 0.851 | 0.850 | 0.851 | 0.853 | 0.851 | 0.851 | 0.851 | 0.850 | 0.853 | 0.849 | 0.851 | 0.850 | 0.851 |
| 29 | 0.3 | 0.852 | 0.851 | 0.851 | 0.851 | 0.850 | 0.843 | 0.852 | 0.849 | 0.851 | 0.850 | 0.852 | 0.851 | 0.851 | 0.851 | 0.850 | 0.843 | 0.851 | 0.849 | 0.851 | 0.850 |
| 30 | 0.3 | 0.852 | 0.847 | 0.850 | 0.848 | 0.850 | 0.851 | 0.849 | 0.847 | 0.852 | 0.849 | 0.852 | 0.846 | 0.850 | 0.848 | 0.850 | 0.852 | 0.849 | 0.847 | 0.852 | 0.850 |
| 31 | 0.3 | 0.846 | 0.852 | 0.854 | 0.850 | 0.850 | 0.849 | 0.853 | 0.851 | 0.850 | 0.850 | 0.847 | 0.852 | 0.854 | 0.850 | 0.850 | 0.849 | 0.853 | 0.851 | 0.850 | 0.850 |
| 32 | 0.7 | 0.308 | 0.307 | 0.295 | 0.302 | 0.301 | 0.281 | 0.303 | 0.297 | 0.292 | 0.303 | 0.307 | 0.309 | 0.295 | 0.302 | 0.301 | 0.286 | 0.304 | 0.297 | 0.292 | 0.302 |
| 33 | 0.7 | 0.649 | 0.650 | 0.651 | 0.650 | 0.651 | 0.655 | 0.652 | 0.651 | 0.650 | 0.652 | 0.650 | 0.651 | 0.651 | 0.650 | 0.650 | 0.653 | 0.652 | 0.650 | 0.650 | 0.652 |
| 34 | 0.7 | 0.644 | 0.649 | 0.652 | 0.651 | 0.651 | 0.652 | 0.654 | 0.651 | 0.648 | 0.650 | 0.644 | 0.649 | 0.651 | 0.651 | 0.651 | 0.653 | 0.653 | 0.651 | 0.648 | 0.650 |
| 35 | 0.7 | 0.644 | 0.646 | 0.652 | 0.649 | 0.651 | 0.644 | 0.649 | 0.649 | 0.651 | 0.649 | 0.645 | 0.646 | 0.652 | 0.649 | 0.651 | 0.643 | 0.648 | 0.650 | 0.651 | 0.649 |
| 36 | 0.1 | 0.916 | 0.887 | 0.894 | 0.904 | 0.901 | 0.903 | 0.911 | 0.899 | 0.902 | 0.904 | 0.912 | 0.887 | 0.893 | 0.904 | 0.900 | 0.903 | 0.913 | 0.900 | 0.902 | 0.904 |
| 37 | 0.1 | 0.900 | 0.899 | 0.901 | 0.900 | 0.898 | 0.895 | 0.898 | 0.903 | 0.896 | 0.900 | 0.900 | 0.900 | 0.901 | 0.900 | 0.898 | 0.890 | 0.901 | 0.902 | 0.895 | 0.900 |
| 38 | 0.1 | 0.892 | 0.901 | 0.900 | 0.904 | 0.902 | 0.888 | 0.907 | 0.898 | 0.902 | 0.901 | 0.890 | 0.899 | 0.900 | 0.904 | 0.902 | 0.889 | 0.909 | 0.898 | 0.901 | 0.901 |
| 39 | 0.1 | 0.887 | 0.897 | 0.896 | 0.901 | 0.898 | 0.911 | 0.915 | 0.910 | 0.893 | 0.896 | 0.889 | 0.897 | 0.897 | 0.901 | 0.898 | 0.914 | 0.915 | 0.909 | 0.893 | 0.896 |
| 40 | 0.1 | 0.892 | 0.889 | 0.903 | 0.897 | 0.900 | 0.885 | 0.903 | 0.898 | 0.903 | 0.901 | 0.893 | 0.891 | 0.902 | 0.897 | 0.901 | 0.883 | 0.904 | 0.897 | 0.903 | 0.901 |
| 41 | 0.1 | 0.896 | 0.889 | 0.893 | 0.903 | 0.896 | 0.909 | 0.909 | 0.901 | 0.899 | 0.901 | 0.895 | 0.886 | 0.893 | 0.902 | 0.896 | 0.908 | 0.905 | 0.902 | 0.900 | 0.901 |
| 42 | 0.1 | 0.902 | 0.910 | 0.902 | 0.898 | 0.900 | 0.908 | 0.911 | 0.901 | 0.898 | 0.901 | 0.903 | 0.909 | 0.902 | 0.898 | 0.900 | 0.909 | 0.909 | 0.902 | 0.898 | 0.902 |
| 43 | 0.1 | 0.910 | 0.899 | 0.899 | 0.900 | 0.899 | 0.889 | 0.903 | 0.897 | 0.899 | 0.904 | 0.911 | 0.900 | 0.899 | 0.900 | 0.899 | 0.892 | 0.904 | 0.896 | 0.898 | 0.904 |
| 44 | 0.1 | 0.948 | 0.953 | 0.949 | 0.950 | 0.949 | 0.952 | 0.946 | 0.949 | 0.952 | 0.950 | 0.949 | 0.953 | 0.948 | 0.950 | 0.949 | 0.953 | 0.946 | 0.950 | 0.952 | 0.950 |
| 45 | 0.1 | 0.953 | 0.950 | 0.948 | 0.952 | 0.950 | 0.950 | 0.948 | 0.953 | 0.946 | 0.951 | 0.953 | 0.949 | 0.948 | 0.952 | 0.950 | 0.950 | 0.948 | 0.953 | 0.946 | 0.951 |
| 46 | 0.1 | 0.952 | 0.951 | 0.950 | 0.951 | 0.951 | 0.953 | 0.951 | 0.950 | 0.951 | 0.950 | 0.952 | 0.951 | 0.950 | 0.951 | 0.951 | 0.954 | 0.951 | 0.950 | 0.951 | 0.950 |
| 47 | 0.1 | 0.952 | 0.949 | 0.954 | 0.949 | 0.949 | 0.950 | 0.952 | 0.956 | 0.950 | 0.950 | 0.953 | 0.949 | 0.953 | 0.948 | 0.949 | 0.949 | 0.951 | 0.956 | 0.950 | 0.950 |
| 48 | 0.1 | 0.946 | 0.950 | 0.952 | 0.948 | 0.950 | 0.951 | 0.949 | 0.950 | 0.950 | 0.950 | 0.946 | 0.949 | 0.952 | 0.948 | 0.950 | 0.949 | 0.949 | 0.950 | 0.950 | 0.950 |
| 49 | 0.1 | 0.948 | 0.952 | 0.949 | 0.952 | 0.950 | 0.951 | 0.949 | 0.950 | 0.947 | 0.950 | 0.948 | 0.951 | 0.949 | 0.952 | 0.950 | 0.951 | 0.950 | 0.950 | 0.947 | 0.950 |
| 50 | 0.1 | 0.951 | 0.948 | 0.950 | 0.951 | 0.950 | 0.955 | 0.952 | 0.947 | 0.950 | 0.949 | 0.952 | 0.949 | 0.950 | 0.951 | 0.950 | 0.955 | 0.952 | 0.947 | 0.950 | 0.949 |
| 51 | 0.1 | 0.954 | 0.950 | 0.949 | 0.950 | 0.950 | 0.945 | 0.948 | 0.950 | 0.951 | 0.951 | 0.954 | 0.949 | 0.949 | 0.950 | 0.950 | 0.944 | 0.948 | 0.949 | 0.951 | 0.951 |
| 52 | 0.3 | 0.699 | 0.703 | 0.697 | 0.703 | 0.703 | 0.703 | 0.698 | 0.714 | 0.702 | 0.700 | 0.698 | 0.704 | 0.697 | 0.703 | 0.703 | 0.709 | 0.697 | 0.713 | 0.701 | 0.699 |
| 53 | 0.3 | 0.699 | 0.683 | 0.688 | 0.700 | 0.700 | 0.680 | 0.702 | 0.698 | 0.696 | 0.703 | 0.701 | 0.682 | 0.688 | 0.700 | 0.700 | 0.680 | 0.705 | 0.698 | 0.696 | 0.703 |
| 54 | 0.3 | 0.697 | 0.700 | 0.694 | 0.702 | 0.703 | 0.696 | 0.697 | 0.702 | 0.699 | 0.698 | 0.698 | 0.700 | 0.694 | 0.702 | 0.703 | 0.695 | 0.696 | 0.700 | 0.699 | 0.698 |
| 55 | 0.3 | 0.692 | 0.703 | 0.694 | 0.694 | 0.702 | 0.709 | 0.697 | 0.704 | 0.702 | 0.697 | 0.692 | 0.701 | 0.695 | 0.694 | 0.702 | 0.710 | 0.697 | 0.705 | 0.703 | 0.697 |
| 56 | 0.3 | 0.711 | 0.688 | 0.698 | 0.702 | 0.702 | 0.710 | 0.702 | 0.704 | 0.696 | 0.702 | 0.709 | 0.688 | 0.698 | 0.702 | 0.702 | 0.709 | 0.701 | 0.704 | 0.696 | 0.702 |
| 57 | 0.3 | 0.701 | 0.713 | 0.701 | 0.711 | 0.699 | 0.721 | 0.694 | 0.701 | 0.701 | 0.700 | 0.699 | 0.713 | 0.701 | 0.712 | 0.699 | 0.724 | 0.695 | 0.700 | 0.701 | 0.700 |
| 58 | 0.3 | 0.849 | 0.851 | 0.850 | 0.851 | 0.850 | 0.848 | 0.848 | 0.852 | 0.850 | 0.851 | 0.848 | 0.851 | 0.849 | 0.851 | 0.850 | 0.849 | 0.849 | 0.852 | 0.850 | 0.851 |
| 59 | 0.3 | 0.849 | 0.847 | 0.849 | 0.849 | 0.850 | 0.851 | 0.853 | 0.851 | 0.848 | 0.850 | 0.850 | 0.847 | 0.849 | 0.850 | 0.850 | 0.850 | 0.852 | 0.852 | 0.848 | 0.850 |
| 60 | 0.3 | 0.850 | 0.851 | 0.849 | 0.850 | 0.849 | 0.847 | 0.847 | 0.849 | 0.848 | 0.850 | 0.849 | 0.851 | 0.849 | 0.849 | 0.849 | 0.847 | 0.847 | 0.849 | 0.848 | 0.850 |
| 61 | 0.3 | 0.853 | 0.848 | 0.851 | 0.851 | 0.850 | 0.849 | 0.851 | 0.846 | 0.848 | 0.851 | 0.853 | 0.848 | 0.851 | 0.851 | 0.850 | 0.848 | 0.851 | 0.846 | 0.848 | 0.851 |
| 62 | 0.3 | 0.849 | 0.851 | 0.850 | 0.850 | 0.850 | 0.850 | 0.849 | 0.848 | 0.851 | 0.849 | 0.849 | 0.852 | 0.851 | 0.850 | 0.850 | 0.849 | 0.850 | 0.848 | 0.851 | 0.849 |
| 63 | 0.3 | 0.849 | 0.853 | 0.850 | 0.848 | 0.849 | 0.846 | 0.853 | 0.850 | 0.852 | 0.850 | 0.849 | 0.851 | 0.850 | 0.848 | 0.849 | 0.846 | 0.853 | 0.850 | 0.852 | 0.850 |
| 64 | 0.3 | 0.850 | 0.854 | 0.849 | 0.851 | 0.851 | 0.855 | 0.851 | 0.850 | 0.851 | 0.852 | 0.849 | 0.854 | 0.849 | 0.851 | 0.851 | 0.854 | 0.851 | 0.850 | 0.851 | 0.852 |
| 65 | 0.3 | 0.845 | 0.852 | 0.852 | 0.848 | 0.850 | 0.851 | 0.848 | 0.850 | 0.851 | 0.851 | 0.845 | 0.851 | 0.852 | 0.848 | 0.850 | 0.851 | 0.848 | 0.849 | 0.851 | 0.851 |
| 66 | 0.7 | 0.651 | 0.649 | 0.651 | 0.647 | 0.650 | 0.659 | 0.651 | 0.650 | 0.648 | 0.650 | 0.650 | 0.649 | 0.651 | 0.647 | 0.650 | 0.657 | 0.650 | 0.649 | 0.648 | 0.650 |
| 67 | 0.7 | 0.653 | 0.654 | 0.649 | 0.651 | 0.651 | 0.649 | 0.652 | 0.652 | 0.651 | 0.649 | 0.653 | 0.655 | 0.649 | 0.651 | 0.651 | 0.648 | 0.651 | 0.653 | 0.651 | 0.649 |
| 68 | 0.1 | 0.873 | 0.915 | 0.911 | 0.901 | 0.899 | 0.917 | 0.905 | 0.899 | 0.905 | 0.898 | 0.871 | 0.912 | 0.911 | 0.901 | 0.899 | 0.919 | 0.907 | 0.902 | 0.905 | 0.898 |
| 69 | 0.1 | 0.900 | 0.904 | 0.904 | 0.899 | 0.899 | 0.892 | 0.896 | 0.911 | 0.903 | 0.903 | 0.901 | 0.902 | 0.905 | 0.899 | 0.899 | 0.895 | 0.895 | 0.911 | 0.903 | 0.903 |
| 70 | 0.1 | 0.897 | 0.888 | 0.900 | 0.900 | 0.903 | 0.890 | 0.890 | 0.908 | 0.898 | 0.897 | 0.897 | 0.888 | 0.900 | 0.900 | 0.903 | 0.894 | 0.893 | 0.908 | 0.898 | 0.896 |
| 71 | 0.1 | 0.899 | 0.898 | 0.905 | 0.900 | 0.901 | 0.890 | 0.907 | 0.906 | 0.893 | 0.902 | 0.899 | 0.898 | 0.906 | 0.900 | 0.901 | 0.895 | 0.907 | 0.907 | 0.893 | 0.902 |
| 72 | 0.1 | 0.899 | 0.896 | 0.901 | 0.900 | 0.902 | 0.883 | 0.896 | 0.902 | 0.898 | 0.898 | 0.901 | 0.897 | 0.901 | 0.900 | 0.902 | 0.879 | 0.896 | 0.902 | 0.897 | 0.898 |
| 73 | 0.1 | 0.896 | 0.895 | 0.899 | 0.898 | 0.896 | 0.905 | 0.899 | 0.909 | 0.901 | 0.904 | 0.895 | 0.894 | 0.898 | 0.899 | 0.896 | 0.906 | 0.898 | 0.909 | 0.901 | 0.904 |
| 74 | 0.1 | 0.878 | 0.903 | 0.903 | 0.897 | 0.899 | 0.893 | 0.907 | 0.907 | 0.897 | 0.900 | 0.880 | 0.901 | 0.902 | 0.897 | 0.899 | 0.894 | 0.908 | 0.905 | 0.898 | 0.901 |
| 75 | 0.1 | 0.903 | 0.908 | 0.901 | 0.897 | 0.903 | 0.895 | 0.905 | 0.902 | 0.902 | 0.895 | 0.909 | 0.909 | 0.900 | 0.897 | 0.903 | 0.896 | 0.907 | 0.902 | 0.903 | 0.896 |

**Table 21. Average absolute relative bias values for Level-2 parameters based on the re-sampled sample sizes for conditions 75 - 150.**

| | | Level-2 Parameter Absolute Relative Percentage Bias | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $\beta_{00}$ | | | | | $\beta_{01}$ | | | | | $\beta_{10}$ | | | | | $\beta_{11}$ | | | | |
| | Effect Size | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 |
| 76 | 0.1 | 0.949 | 0.951 | 0.950 | 0.949 | 0.949 | 0.937 | 0.953 | 0.947 | 0.953 | 0.949 | 0.949 | 0.952 | 0.951 | 0.949 | 0.949 | 0.937 | 0.952 | 0.947 | 0.953 | 0.949 |
| 77 | 0.1 | 0.948 | 0.950 | 0.950 | 0.950 | 0.949 | 0.950 | 0.947 | 0.950 | 0.950 | 0.951 | 0.947 | 0.949 | 0.950 | 0.949 | 0.949 | 0.950 | 0.947 | 0.950 | 0.950 | 0.951 |
| 78 | 0.1 | 0.948 | 0.949 | 0.951 | 0.949 | 0.950 | 0.940 | 0.950 | 0.953 | 0.951 | 0.950 | 0.949 | 0.949 | 0.951 | 0.949 | 0.950 | 0.941 | 0.950 | 0.954 | 0.951 | 0.950 |
| 79 | 0.1 | 0.949 | 0.950 | 0.951 | 0.949 | 0.950 | 0.948 | 0.948 | 0.950 | 0.951 | 0.951 | 0.950 | 0.950 | 0.950 | 0.949 | 0.950 | 0.947 | 0.950 | 0.950 | 0.951 | 0.951 |
| 80 | 0.1 | 0.952 | 0.951 | 0.947 | 0.951 | 0.950 | 0.955 | 0.952 | 0.949 | 0.951 | 0.950 | 0.952 | 0.951 | 0.948 | 0.951 | 0.950 | 0.956 | 0.952 | 0.948 | 0.951 | 0.950 |
| 81 | 0.1 | 0.950 | 0.949 | 0.951 | 0.951 | 0.951 | 0.950 | 0.945 | 0.950 | 0.949 | 0.950 | 0.952 | 0.949 | 0.952 | 0.951 | 0.951 | 0.950 | 0.946 | 0.950 | 0.949 | 0.950 |
| 82 | 0.1 | 0.945 | 0.948 | 0.948 | 0.949 | 0.950 | 0.952 | 0.949 | 0.951 | 0.954 | 0.950 | 0.945 | 0.947 | 0.949 | 0.949 | 0.950 | 0.951 | 0.949 | 0.951 | 0.954 | 0.950 |
| 83 | 0.1 | 0.949 | 0.948 | 0.951 | 0.950 | 0.950 | 0.953 | 0.948 | 0.948 | 0.952 | 0.951 | 0.949 | 0.947 | 0.952 | 0.950 | 0.950 | 0.954 | 0.948 | 0.948 | 0.951 | 0.951 |
| 84 | 0.3 | 0.691 | 0.702 | 0.695 | 0.703 | 0.696 | 0.702 | 0.694 | 0.697 | 0.699 | 0.697 | 0.696 | 0.700 | 0.694 | 0.702 | 0.696 | 0.702 | 0.693 | 0.697 | 0.699 | 0.697 |
| 85 | 0.3 | 0.694 | 0.705 | 0.706 | 0.697 | 0.702 | 0.694 | 0.708 | 0.702 | 0.694 | 0.694 | 0.695 | 0.708 | 0.705 | 0.698 | 0.701 | 0.690 | 0.710 | 0.703 | 0.695 | 0.694 |
| 86 | 0.3 | 0.690 | 0.690 | 0.697 | 0.701 | 0.700 | 0.700 | 0.703 | 0.705 | 0.700 | 0.697 | 0.688 | 0.691 | 0.696 | 0.701 | 0.700 | 0.701 | 0.702 | 0.706 | 0.699 | 0.697 |
| 87 | 0.3 | 0.689 | 0.703 | 0.703 | 0.702 | 0.699 | 0.702 | 0.705 | 0.699 | 0.702 | 0.703 | 0.691 | 0.705 | 0.703 | 0.703 | 0.699 | 0.712 | 0.706 | 0.699 | 0.702 | 0.703 |
| 88 | 0.3 | 0.694 | 0.708 | 0.696 | 0.704 | 0.699 | 0.694 | 0.696 | 0.692 | 0.704 | 0.697 | 0.692 | 0.707 | 0.696 | 0.704 | 0.700 | 0.694 | 0.696 | 0.692 | 0.705 | 0.697 |
| 89 | 0.3 | 0.694 | 0.709 | 0.700 | 0.702 | 0.699 | 0.724 | 0.691 | 0.703 | 0.701 | 0.700 | 0.692 | 0.710 | 0.700 | 0.702 | 0.700 | 0.721 | 0.693 | 0.704 | 0.701 | 0.700 |
| 90 | 0.3 | 0.693 | 0.712 | 0.707 | 0.697 | 0.703 | 0.683 | 0.708 | 0.698 | 0.707 | 0.698 | 0.694 | 0.713 | 0.708 | 0.697 | 0.702 | 0.685 | 0.707 | 0.697 | 0.707 | 0.698 |
| 91 | 0.3 | 0.684 | 0.688 | 0.696 | 0.702 | 0.703 | 0.700 | 0.707 | 0.703 | 0.695 | 0.700 | 0.682 | 0.691 | 0.697 | 0.702 | 0.703 | 0.701 | 0.707 | 0.703 | 0.695 | 0.700 |
| 92 | 0.3 | 0.854 | 0.855 | 0.848 | 0.852 | 0.851 | 0.857 | 0.843 | 0.847 | 0.847 | 0.850 | 0.853 | 0.854 | 0.848 | 0.852 | 0.850 | 0.856 | 0.842 | 0.847 | 0.847 | 0.850 |
| 93 | 0.3 | 0.849 | 0.849 | 0.848 | 0.849 | 0.849 | 0.846 | 0.856 | 0.850 | 0.849 | 0.851 | 0.848 | 0.849 | 0.848 | 0.849 | 0.849 | 0.846 | 0.856 | 0.851 | 0.849 | 0.850 |
| 94 | 0.3 | 0.844 | 0.850 | 0.849 | 0.849 | 0.849 | 0.847 | 0.851 | 0.850 | 0.848 | 0.851 | 0.845 | 0.849 | 0.850 | 0.849 | 0.849 | 0.847 | 0.851 | 0.850 | 0.848 | 0.851 |
| 95 | 0.3 | 0.848 | 0.851 | 0.849 | 0.851 | 0.850 | 0.854 | 0.840 | 0.851 | 0.849 | 0.848 | 0.850 | 0.852 | 0.849 | 0.850 | 0.851 | 0.855 | 0.840 | 0.851 | 0.849 | 0.848 |
| 96 | 0.3 | 0.852 | 0.852 | 0.851 | 0.850 | 0.850 | 0.849 | 0.852 | 0.848 | 0.851 | 0.850 | 0.851 | 0.852 | 0.851 | 0.850 | 0.850 | 0.849 | 0.853 | 0.848 | 0.851 | 0.850 |
| 97 | 0.3 | 0.851 | 0.851 | 0.851 | 0.850 | 0.851 | 0.848 | 0.849 | 0.852 | 0.852 | 0.850 | 0.851 | 0.850 | 0.851 | 0.850 | 0.851 | 0.849 | 0.849 | 0.852 | 0.852 | 0.850 |
| 98 | 0.3 | 0.848 | 0.849 | 0.848 | 0.850 | 0.849 | 0.843 | 0.850 | 0.851 | 0.849 | 0.850 | 0.850 | 0.850 | 0.848 | 0.850 | 0.849 | 0.843 | 0.850 | 0.851 | 0.849 | 0.850 |
| 99 | 0.3 | 0.848 | 0.852 | 0.847 | 0.848 | 0.851 | 0.848 | 0.848 | 0.851 | 0.850 | 0.849 | 0.850 | 0.852 | 0.848 | 0.848 | 0.851 | 0.848 | 0.849 | 0.850 | 0.850 | 0.850 |
| 100 | 0.7 | 0.297 | 0.303 | 0.302 | 0.302 | 0.300 | 0.301 | 0.302 | 0.288 | 0.294 | 0.301 | 0.302 | 0.304 | 0.302 | 0.302 | 0.300 | 0.302 | 0.298 | 0.290 | 0.294 | 0.301 |
| 101 | 0.7 | 0.301 | 0.305 | 0.299 | 0.296 | 0.300 | 0.305 | 0.290 | 0.300 | 0.299 | 0.306 | 0.299 | 0.305 | 0.299 | 0.297 | 0.300 | 0.310 | 0.286 | 0.300 | 0.300 | 0.306 |
| 102 | 0.7 | 0.309 | 0.310 | 0.300 | 0.304 | 0.299 | 0.312 | 0.291 | 0.279 | 0.297 | 0.301 | 0.308 | 0.309 | 0.298 | 0.304 | 0.299 | 0.309 | 0.290 | 0.279 | 0.298 | 0.301 |
| 103 | 0.7 | 0.654 | 0.648 | 0.650 | 0.651 | 0.651 | 0.645 | 0.651 | 0.649 | 0.650 | 0.648 | 0.656 | 0.648 | 0.649 | 0.651 | 0.651 | 0.645 | 0.652 | 0.649 | 0.650 | 0.648 |
| 104 | 0.7 | 0.651 | 0.652 | 0.651 | 0.650 | 0.651 | 0.648 | 0.653 | 0.647 | 0.651 | 0.650 | 0.652 | 0.653 | 0.651 | 0.650 | 0.651 | 0.647 | 0.653 | 0.647 | 0.651 | 0.650 |
| 105 | 0.7 | 0.650 | 0.650 | 0.651 | 0.652 | 0.650 | 0.653 | 0.650 | 0.647 | 0.651 | 0.651 | 0.650 | 0.650 | 0.650 | 0.652 | 0.650 | 0.653 | 0.649 | 0.648 | 0.650 | 0.651 |
| 106 | 0.7 | 0.650 | 0.647 | 0.651 | 0.650 | 0.651 | 0.647 | 0.651 | 0.649 | 0.649 | 0.652 | 0.651 | 0.648 | 0.651 | 0.650 | 0.651 | 0.648 | 0.650 | 0.649 | 0.650 | 0.652 |
| 107 | 0.7 | 0.655 | 0.649 | 0.651 | 0.650 | 0.650 | 0.643 | 0.653 | 0.650 | 0.650 | 0.651 | 0.655 | 0.650 | 0.651 | 0.650 | 0.650 | 0.644 | 0.652 | 0.649 | 0.650 | 0.651 |
| 108 | 0.1 | 0.898 | 0.878 | 0.904 | 0.899 | 0.901 | 0.909 | 0.896 | 0.905 | 0.904 | 0.902 | 0.894 | 0.882 | 0.903 | 0.899 | 0.901 | 0.916 | 0.896 | 0.903 | 0.904 | 0.902 |
| 109 | 0.1 | 0.896 | 0.903 | 0.903 | 0.903 | 0.900 | 0.903 | 0.903 | 0.886 | 0.904 | 0.901 | 0.896 | 0.903 | 0.903 | 0.902 | 0.900 | 0.899 | 0.903 | 0.887 | 0.904 | 0.901 |
| 110 | 0.1 | 0.888 | 0.892 | 0.911 | 0.900 | 0.898 | 0.893 | 0.886 | 0.905 | 0.901 | 0.899 | 0.887 | 0.889 | 0.912 | 0.899 | 0.898 | 0.892 | 0.888 | 0.904 | 0.901 | 0.899 |
| 111 | 0.1 | 0.898 | 0.911 | 0.899 | 0.900 | 0.901 | 0.900 | 0.899 | 0.893 | 0.899 | 0.900 | 0.895 | 0.910 | 0.899 | 0.899 | 0.901 | 0.898 | 0.897 | 0.894 | 0.899 | 0.900 |
| 112 | 0.1 | 0.911 | 0.905 | 0.902 | 0.894 | 0.899 | 0.893 | 0.885 | 0.904 | 0.896 | 0.901 | 0.912 | 0.905 | 0.902 | 0.893 | 0.899 | 0.892 | 0.889 | 0.904 | 0.895 | 0.902 |
| 113 | 0.1 | 0.900 | 0.907 | 0.898 | 0.897 | 0.901 | 0.890 | 0.899 | 0.898 | 0.900 | 0.899 | 0.900 | 0.907 | 0.898 | 0.896 | 0.901 | 0.894 | 0.898 | 0.898 | 0.901 | 0.898 |
| 114 | 0.1 | 0.901 | 0.911 | 0.900 | 0.892 | 0.896 | 0.892 | 0.901 | 0.904 | 0.894 | 0.906 | 0.899 | 0.913 | 0.899 | 0.892 | 0.896 | 0.890 | 0.902 | 0.904 | 0.894 | 0.906 |
| 115 | 0.1 | 0.896 | 0.895 | 0.904 | 0.903 | 0.898 | 0.896 | 0.891 | 0.895 | 0.900 | 0.899 | 0.898 | 0.894 | 0.904 | 0.904 | 0.898 | 0.898 | 0.892 | 0.894 | 0.900 | 0.899 |
| 116 | 0.1 | 0.949 | 0.949 | 0.949 | 0.951 | 0.951 | 0.948 | 0.953 | 0.953 | 0.949 | 0.949 | 0.948 | 0.949 | 0.949 | 0.951 | 0.951 | 0.951 | 0.952 | 0.953 | 0.949 | 0.949 |
| 117 | 0.1 | 0.954 | 0.951 | 0.952 | 0.949 | 0.950 | 0.943 | 0.950 | 0.948 | 0.952 | 0.951 | 0.953 | 0.951 | 0.952 | 0.948 | 0.950 | 0.944 | 0.949 | 0.947 | 0.951 | 0.951 |
| 118 | 0.1 | 0.953 | 0.951 | 0.948 | 0.950 | 0.950 | 0.950 | 0.949 | 0.951 | 0.950 | 0.949 | 0.952 | 0.950 | 0.948 | 0.950 | 0.950 | 0.951 | 0.949 | 0.951 | 0.950 | 0.949 |
| 119 | 0.1 | 0.948 | 0.950 | 0.950 | 0.950 | 0.949 | 0.953 | 0.955 | 0.952 | 0.949 | 0.950 | 0.948 | 0.950 | 0.950 | 0.950 | 0.949 | 0.954 | 0.955 | 0.952 | 0.949 | 0.950 |
| 120 | 0.1 | 0.951 | 0.951 | 0.950 | 0.948 | 0.949 | 0.952 | 0.952 | 0.949 | 0.949 | 0.951 | 0.950 | 0.951 | 0.949 | 0.949 | 0.949 | 0.951 | 0.951 | 0.949 | 0.949 | 0.951 |
| 121 | 0.1 | 0.952 | 0.950 | 0.949 | 0.949 | 0.950 | 0.948 | 0.953 | 0.952 | 0.952 | 0.949 | 0.953 | 0.949 | 0.948 | 0.949 | 0.950 | 0.948 | 0.953 | 0.953 | 0.952 | 0.949 |
| 122 | 0.1 | 0.948 | 0.951 | 0.951 | 0.950 | 0.951 | 0.957 | 0.950 | 0.949 | 0.953 | 0.949 | 0.948 | 0.951 | 0.951 | 0.950 | 0.951 | 0.957 | 0.950 | 0.949 | 0.953 | 0.949 |
| 123 | 0.1 | 0.949 | 0.946 | 0.949 | 0.951 | 0.951 | 0.951 | 0.953 | 0.953 | 0.952 | 0.950 | 0.950 | 0.946 | 0.948 | 0.951 | 0.951 | 0.951 | 0.953 | 0.953 | 0.952 | 0.950 |
| 124 | 0.3 | 0.695 | 0.708 | 0.699 | 0.701 | 0.702 | 0.696 | 0.697 | 0.703 | 0.701 | 0.702 | 0.692 | 0.709 | 0.700 | 0.701 | 0.702 | 0.693 | 0.696 | 0.701 | 0.701 | 0.702 |
| 125 | 0.3 | 0.696 | 0.709 | 0.697 | 0.696 | 0.700 | 0.692 | 0.705 | 0.697 | 0.699 | 0.700 | 0.696 | 0.710 | 0.698 | 0.696 | 0.700 | 0.699 | 0.705 | 0.696 | 0.699 | 0.701 |
| 126 | 0.3 | 0.712 | 0.698 | 0.707 | 0.699 | 0.701 | 0.705 | 0.690 | 0.689 | 0.702 | 0.701 | 0.706 | 0.696 | 0.707 | 0.699 | 0.701 | 0.706 | 0.688 | 0.688 | 0.701 | 0.701 |
| 127 | 0.3 | 0.687 | 0.697 | 0.698 | 0.702 | 0.702 | 0.715 | 0.686 | 0.697 | 0.703 | 0.700 | 0.682 | 0.698 | 0.697 | 0.702 | 0.702 | 0.716 | 0.685 | 0.698 | 0.704 | 0.700 |
| 128 | 0.3 | 0.702 | 0.706 | 0.704 | 0.702 | 0.699 | 0.720 | 0.692 | 0.695 | 0.697 | 0.700 | 0.705 | 0.705 | 0.703 | 0.702 | 0.699 | 0.722 | 0.694 | 0.696 | 0.697 | 0.699 |
| 129 | 0.3 | 0.715 | 0.706 | 0.695 | 0.702 | 0.698 | 0.705 | 0.706 | 0.704 | 0.700 | 0.699 | 0.715 | 0.707 | 0.694 | 0.702 | 0.697 | 0.704 | 0.707 | 0.703 | 0.700 | 0.699 |
| 130 | 0.3 | 0.692 | 0.699 | 0.689 | 0.703 | 0.697 | 0.686 | 0.709 | 0.707 | 0.702 | 0.699 | 0.690 | 0.701 | 0.687 | 0.702 | 0.697 | 0.687 | 0.708 | 0.707 | 0.701 | 0.699 |
| 131 | 0.3 | 0.703 | 0.698 | 0.697 | 0.698 | 0.701 | 0.681 | 0.694 | 0.704 | 0.702 | 0.696 | 0.706 | 0.698 | 0.697 | 0.697 | 0.700 | 0.677 | 0.693 | 0.705 | 0.703 | 0.697 |
| 132 | 0.3 | 0.856 | 0.851 | 0.850 | 0.849 | 0.850 | 0.843 | 0.849 | 0.849 | 0.848 | 0.851 | 0.858 | 0.850 | 0.850 | 0.849 | 0.850 | 0.844 | 0.848 | 0.849 | 0.848 | 0.851 |
| 133 | 0.3 | 0.853 | 0.847 | 0.848 | 0.849 | 0.851 | 0.846 | 0.852 | 0.852 | 0.850 | 0.850 | 0.854 | 0.846 | 0.848 | 0.849 | 0.851 | 0.849 | 0.852 | 0.852 | 0.850 | 0.850 |
| 134 | 0.3 | 0.851 | 0.849 | 0.852 | 0.850 | 0.851 | 0.852 | 0.853 | 0.851 | 0.852 | 0.850 | 0.852 | 0.849 | 0.852 | 0.849 | 0.851 | 0.853 | 0.852 | 0.851 | 0.852 | 0.850 |
| 135 | 0.3 | 0.848 | 0.848 | 0.850 | 0.850 | 0.850 | 0.853 | 0.854 | 0.852 | 0.852 | 0.851 | 0.850 | 0.848 | 0.850 | 0.850 | 0.850 | 0.852 | 0.854 | 0.852 | 0.853 | 0.851 |
| 136 | 0.3 | 0.852 | 0.854 | 0.850 | 0.849 | 0.849 | 0.850 | 0.850 | 0.853 | 0.853 | 0.851 | 0.852 | 0.853 | 0.850 | 0.849 | 0.850 | 0.850 | 0.851 | 0.853 | 0.853 | 0.851 |
| 137 | 0.3 | 0.850 | 0.853 | 0.848 | 0.851 | 0.851 | 0.845 | 0.850 | 0.850 | 0.850 | 0.850 | 0.850 | 0.853 | 0.848 | 0.851 | 0.851 | 0.845 | 0.851 | 0.850 | 0.850 | 0.850 |
| 138 | 0.3 | 0.850 | 0.849 | 0.850 | 0.848 | 0.850 | 0.851 | 0.849 | 0.849 | 0.851 | 0.851 | 0.848 | 0.850 | 0.851 | 0.848 | 0.850 | 0.852 | 0.849 | 0.849 | 0.851 | 0.851 |
| 139 | 0.3 | 0.845 | 0.852 | 0.848 | 0.849 | 0.850 | 0.846 | 0.849 | 0.851 | 0.849 | 0.850 | 0.845 | 0.851 | 0.848 | 0.849 | 0.850 | 0.844 | 0.849 | 0.851 | 0.849 | 0.850 |
| 140 | 0.7 | 0.286 | 0.300 | 0.301 | 0.300 | 0.298 | 0.307 | 0.295 | 0.311 | 0.301 | 0.301 | 0.283 | 0.303 | 0.301 | 0.300 | 0.298 | 0.313 | 0.297 | 0.311 | 0.301 | 0.301 |
| 141 | 0.7 | 0.304 | 0.306 | 0.302 | 0.301 | 0.298 | 0.298 | 0.303 | 0.316 | 0.306 | 0.302 | 0.306 | 0.306 | 0.304 | 0.301 | 0.298 | 0.297 | 0.302 | 0.316 | 0.305 | 0.302 |
| 142 | 0.7 | 0.650 | 0.648 | 0.649 | 0.650 | 0.651 | 0.646 | 0.655 | 0.649 | 0.651 | 0.649 | 0.649 | 0.647 | 0.649 | 0.650 | 0.651 | 0.646 | 0.654 | 0.650 | 0.651 | 0.649 |
| 143 | 0.7 | 0.654 | 0.652 | 0.653 | 0.652 | 0.649 | 0.653 | 0.650 | 0.652 | 0.647 | 0.651 | 0.654 | 0.651 | 0.652 | 0.651 | 0.649 | 0.653 | 0.650 | 0.652 | 0.647 | 0.651 |
| 144 | 0.7 | 0.649 | 0.648 | 0.650 | 0.649 | 0.650 | 0.651 | 0.651 | 0.649 | 0.648 | 0.650 | 0.649 | 0.649 | 0.650 | 0.649 | 0.650 | 0.653 | 0.651 | 0.648 | 0.648 | 0.650 |
| 145 | 0.7 | 0.648 | 0.650 | 0.649 | 0.650 | 0.650 | 0.654 | 0.650 | 0.653 | 0.650 | 0.651 | 0.648 | 0.650 | 0.649 | 0.650 | 0.651 | 0.653 | 0.649 | 0.652 | 0.650 | 0.651 |
| 146 | 0.1 | 0.910 | 0.900 | 0.906 | 0.901 | 0.902 | 0.887 | 0.872 | 0.896 | 0.900 | 0.894 | 0.909 | 0.903 | 0.905 | 0.901 | 0.901 | 0.879 | 0.873 | 0.894 | 0.899 | 0.894 |
| 147 | 0.1 | 0.889 | 0.896 | 0.911 | 0.905 | 0.901 | 0.890 | 0.906 | 0.900 | 0.908 | 0.897 | 0.891 | 0.896 | 0.912 | 0.905 | 0.901 | 0.885 | 0.906 | 0.901 | 0.909 | 0.897 |
| 148 | 0.1 | 0.898 | 0.896 | 0.891 | 0.903 | 0.900 | 0.894 | 0.895 | 0.893 | 0.897 | 0.901 | 0.902 | 0.897 | 0.892 | 0.903 | 0.900 | 0.899 | 0.896 | 0.894 | 0.896 | 0.901 |
| 149 | 0.1 | 0.913 | 0.900 | 0.892 | 0.900 | 0.901 | 0.891 | 0.926 | 0.891 | 0.899 | 0.907 | 0.914 | 0.899 | 0.892 | 0.901 | 0.901 | 0.893 | 0.925 | 0.889 | 0.899 | 0.907 |
| 150 | 0.1 | 0.903 | 0.901 | 0.888 | 0.898 | 0.902 | 0.901 | 0.884 | 0.901 | 0.899 | 0.899 | 0.900 | 0.900 | 0.888 | 0.898 | 0.902 | 0.898 | 0.882 | 0.901 | 0.898 | 0.899 |

**Table 22. Average absolute relative bias values for Level-2 parameters based on the re-sampled sample sizes for conditions 151 - 224.**

| | | Level-2 Parameter Absolute Relative Percentage Bias | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $\beta_{00}$ | | | | | $\beta_{01}$ | | | | | $\beta_{10}$ | | | | | $\beta_{11}$ | | | | |
| | Effect Size | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 | 30 | 50 | 100 | 200 | 500 |
| 151 | 0.1 | 0.883 | 0.898 | 0.901 | 0.897 | 0.902 | 0.933 | 0.894 | 0.894 | 0.902 | 0.897 | 0.886 | 0.899 | 0.901 | 0.896 | 0.902 | 0.937 | 0.893 | 0.895 | 0.903 | 0.897 |
| 152 | 0.1 | 0.895 | 0.899 | 0.912 | 0.896 | 0.903 | 0.885 | 0.886 | 0.896 | 0.902 | 0.894 | 0.894 | 0.898 | 0.912 | 0.897 | 0.903 | 0.884 | 0.890 | 0.897 | 0.902 | 0.894 |
| 153 | 0.1 | 0.895 | 0.904 | 0.897 | 0.899 | 0.901 | 0.907 | 0.906 | 0.902 | 0.891 | 0.901 | 0.892 | 0.905 | 0.897 | 0.899 | 0.901 | 0.908 | 0.906 | 0.902 | 0.891 | 0.902 |
| 154 | 0.1 | 0.948 | 0.953 | 0.945 | 0.950 | 0.949 | 0.940 | 0.950 | 0.950 | 0.945 | 0.950 | 0.948 | 0.952 | 0.945 | 0.950 | 0.949 | 0.939 | 0.949 | 0.949 | 0.945 | 0.950 |
| 155 | 0.1 | 0.952 | 0.949 | 0.950 | 0.950 | 0.951 | 0.954 | 0.955 | 0.951 | 0.948 | 0.949 | 0.952 | 0.949 | 0.950 | 0.950 | 0.951 | 0.951 | 0.954 | 0.951 | 0.948 | 0.949 |
| 156 | 0.1 | 0.948 | 0.949 | 0.952 | 0.951 | 0.950 | 0.949 | 0.945 | 0.951 | 0.951 | 0.950 | 0.949 | 0.949 | 0.952 | 0.950 | 0.950 | 0.949 | 0.945 | 0.951 | 0.951 | 0.949 |
| 157 | 0.1 | 0.948 | 0.947 | 0.949 | 0.952 | 0.949 | 0.962 | 0.947 | 0.950 | 0.954 | 0.952 | 0.949 | 0.947 | 0.949 | 0.952 | 0.949 | 0.962 | 0.946 | 0.950 | 0.955 | 0.952 |
| 158 | 0.1 | 0.951 | 0.948 | 0.950 | 0.949 | 0.949 | 0.945 | 0.948 | 0.949 | 0.948 | 0.950 | 0.951 | 0.947 | 0.950 | 0.949 | 0.949 | 0.945 | 0.948 | 0.949 | 0.948 | 0.950 |
| 159 | 0.1 | 0.949 | 0.951 | 0.949 | 0.950 | 0.949 | 0.952 | 0.946 | 0.945 | 0.949 | 0.948 | 0.951 | 0.951 | 0.949 | 0.950 | 0.949 | 0.952 | 0.945 | 0.945 | 0.950 | 0.948 |
| 160 | 0.1 | 0.948 | 0.946 | 0.949 | 0.951 | 0.950 | 0.943 | 0.955 | 0.946 | 0.953 | 0.948 | 0.949 | 0.946 | 0.948 | 0.951 | 0.950 | 0.942 | 0.954 | 0.946 | 0.953 | 0.948 |
| 161 | 0.1 | 0.949 | 0.955 | 0.949 | 0.951 | 0.951 | 0.950 | 0.950 | 0.953 | 0.950 | 0.950 | 0.949 | 0.955 | 0.949 | 0.951 | 0.951 | 0.949 | 0.950 | 0.953 | 0.950 | 0.950 |
| 162 | 0.3 | 0.711 | 0.691 | 0.709 | 0.704 | 0.702 | 0.679 | 0.703 | 0.695 | 0.699 | 0.708 | 0.710 | 0.691 | 0.708 | 0.703 | 0.702 | 0.674 | 0.709 | 0.695 | 0.699 | 0.708 |
| 163 | 0.3 | 0.700 | 0.693 | 0.705 | 0.700 | 0.699 | 0.720 | 0.724 | 0.695 | 0.695 | 0.697 | 0.703 | 0.694 | 0.704 | 0.700 | 0.699 | 0.720 | 0.724 | 0.692 | 0.696 | 0.697 |
| 164 | 0.3 | 0.691 | 0.698 | 0.701 | 0.699 | 0.703 | 0.702 | 0.695 | 0.700 | 0.705 | 0.694 | 0.690 | 0.697 | 0.701 | 0.698 | 0.702 | 0.706 | 0.693 | 0.701 | 0.705 | 0.694 |
| 165 | 0.3 | 0.707 | 0.697 | 0.703 | 0.701 | 0.703 | 0.697 | 0.685 | 0.720 | 0.699 | 0.693 | 0.703 | 0.699 | 0.703 | 0.701 | 0.702 | 0.694 | 0.688 | 0.718 | 0.699 | 0.693 |
| 166 | 0.3 | 0.697 | 0.697 | 0.705 | 0.694 | 0.701 | 0.681 | 0.699 | 0.697 | 0.702 | 0.698 | 0.701 | 0.696 | 0.705 | 0.694 | 0.702 | 0.681 | 0.701 | 0.695 | 0.702 | 0.699 |
| 167 | 0.3 | 0.697 | 0.695 | 0.698 | 0.705 | 0.698 | 0.698 | 0.727 | 0.691 | 0.705 | 0.693 | 0.699 | 0.697 | 0.699 | 0.705 | 0.698 | 0.700 | 0.725 | 0.692 | 0.704 | 0.693 |
| 168 | 0.3 | 0.701 | 0.699 | 0.704 | 0.697 | 0.700 | 0.692 | 0.710 | 0.700 | 0.693 | 0.700 | 0.702 | 0.699 | 0.705 | 0.697 | 0.700 | 0.693 | 0.707 | 0.698 | 0.693 | 0.700 |
| 169 | 0.3 | 0.690 | 0.703 | 0.705 | 0.700 | 0.700 | 0.703 | 0.689 | 0.694 | 0.698 | 0.700 | 0.690 | 0.703 | 0.704 | 0.700 | 0.701 | 0.701 | 0.688 | 0.695 | 0.698 | 0.700 |
| 170 | 0.3 | 0.850 | 0.853 | 0.847 | 0.850 | 0.850 | 0.855 | 0.855 | 0.848 | 0.851 | 0.846 | 0.849 | 0.853 | 0.846 | 0.850 | 0.850 | 0.855 | 0.854 | 0.848 | 0.851 | 0.846 |
| 171 | 0.3 | 0.850 | 0.853 | 0.848 | 0.850 | 0.850 | 0.838 | 0.845 | 0.851 | 0.852 | 0.851 | 0.848 | 0.853 | 0.848 | 0.850 | 0.849 | 0.838 | 0.846 | 0.850 | 0.852 | 0.851 |
| 172 | 0.3 | 0.851 | 0.850 | 0.850 | 0.851 | 0.849 | 0.849 | 0.850 | 0.852 | 0.850 | 0.851 | 0.851 | 0.849 | 0.850 | 0.851 | 0.849 | 0.849 | 0.850 | 0.852 | 0.850 | 0.851 |
| 173 | 0.3 | 0.856 | 0.850 | 0.847 | 0.850 | 0.851 | 0.853 | 0.857 | 0.857 | 0.852 | 0.849 | 0.856 | 0.850 | 0.847 | 0.850 | 0.851 | 0.851 | 0.856 | 0.856 | 0.852 | 0.849 |
| 174 | 0.3 | 0.852 | 0.851 | 0.849 | 0.853 | 0.851 | 0.840 | 0.857 | 0.850 | 0.848 | 0.849 | 0.851 | 0.851 | 0.848 | 0.853 | 0.851 | 0.841 | 0.858 | 0.850 | 0.848 | 0.849 |
| 175 | 0.3 | 0.850 | 0.850 | 0.847 | 0.852 | 0.850 | 0.848 | 0.851 | 0.850 | 0.848 | 0.851 | 0.851 | 0.849 | 0.847 | 0.852 | 0.850 | 0.849 | 0.851 | 0.850 | 0.848 | 0.851 |
| 176 | 0.3 | 0.853 | 0.850 | 0.852 | 0.851 | 0.850 | 0.853 | 0.853 | 0.847 | 0.852 | 0.848 | 0.852 | 0.850 | 0.853 | 0.851 | 0.850 | 0.855 | 0.854 | 0.848 | 0.852 | 0.848 |
| 177 | 0.3 | 0.847 | 0.851 | 0.851 | 0.847 | 0.850 | 0.852 | 0.851 | 0.849 | 0.849 | 0.850 | 0.847 | 0.850 | 0.851 | 0.847 | 0.850 | 0.853 | 0.851 | 0.849 | 0.849 | 0.850 |
| 178 | 0.7 | 0.301 | 0.302 | 0.297 | 0.293 | 0.298 | 0.287 | 0.296 | 0.284 | 0.300 | 0.302 | 0.301 | 0.303 | 0.296 | 0.293 | 0.298 | 0.288 | 0.292 | 0.283 | 0.300 | 0.302 |
| 179 | 0.7 | 0.319 | 0.298 | 0.304 | 0.300 | 0.302 | 0.298 | 0.288 | 0.305 | 0.295 | 0.299 | 0.317 | 0.298 | 0.304 | 0.299 | 0.302 | 0.306 | 0.294 | 0.304 | 0.296 | 0.299 |
| 180 | 0.7 | 0.300 | 0.299 | 0.300 | 0.296 | 0.299 | 0.317 | 0.286 | 0.291 | 0.292 | 0.302 | 0.299 | 0.299 | 0.300 | 0.296 | 0.299 | 0.319 | 0.289 | 0.291 | 0.292 | 0.303 |
| 181 | 0.7 | 0.642 | 0.652 | 0.648 | 0.649 | 0.650 | 0.658 | 0.654 | 0.653 | 0.650 | 0.649 | 0.643 | 0.652 | 0.648 | 0.649 | 0.650 | 0.657 | 0.655 | 0.654 | 0.650 | 0.649 |
| 182 | 0.7 | 0.649 | 0.647 | 0.653 | 0.649 | 0.650 | 0.653 | 0.650 | 0.644 | 0.650 | 0.648 | 0.650 | 0.647 | 0.653 | 0.649 | 0.650 | 0.653 | 0.650 | 0.644 | 0.650 | 0.648 |
| 183 | 0.7 | 0.653 | 0.652 | 0.648 | 0.651 | 0.650 | 0.652 | 0.645 | 0.651 | 0.649 | 0.649 | 0.654 | 0.653 | 0.648 | 0.651 | 0.650 | 0.655 | 0.646 | 0.650 | 0.649 | 0.649 |
| 184 | 0.7 | 0.653 | 0.652 | 0.652 | 0.651 | 0.650 | 0.651 | 0.655 | 0.654 | 0.650 | 0.649 | 0.653 | 0.653 | 0.652 | 0.651 | 0.650 | 0.650 | 0.655 | 0.654 | 0.650 | 0.649 |
| 185 | 0.7 | 0.647 | 0.648 | 0.653 | 0.649 | 0.650 | 0.651 | 0.648 | 0.647 | 0.648 | 0.651 | 0.649 | 0.649 | 0.653 | 0.649 | 0.650 | 0.653 | 0.648 | 0.646 | 0.648 | 0.651 |
| 186 | 0.7 | 0.650 | 0.646 | 0.650 | 0.649 | 0.651 | 0.645 | 0.650 | 0.649 | 0.649 | 0.649 | 0.650 | 0.647 | 0.650 | 0.649 | 0.651 | 0.645 | 0.650 | 0.650 | 0.649 | 0.649 |
| 187 | 0.1 | 0.900 | 0.898 | 0.897 | 0.894 | 0.902 | 0.892 | 0.908 | 0.883 | 0.905 | 0.902 | 0.899 | 0.899 | 0.897 | 0.894 | 0.902 | 0.896 | 0.905 | 0.886 | 0.904 | 0.902 |
| 188 | 0.1 | 0.912 | 0.907 | 0.905 | 0.907 | 0.897 | 0.899 | 0.889 | 0.893 | 0.905 | 0.907 | 0.905 | 0.910 | 0.905 | 0.906 | 0.897 | 0.894 | 0.886 | 0.894 | 0.905 | 0.907 |
| 189 | 0.1 | 0.897 | 0.904 | 0.894 | 0.894 | 0.903 | 0.892 | 0.896 | 0.893 | 0.903 | 0.901 | 0.897 | 0.907 | 0.895 | 0.894 | 0.903 | 0.894 | 0.898 | 0.893 | 0.903 | 0.901 |
| 190 | 0.1 | 0.899 | 0.905 | 0.899 | 0.902 | 0.900 | 0.861 | 0.895 | 0.910 | 0.895 | 0.907 | 0.899 | 0.906 | 0.898 | 0.902 | 0.900 | 0.859 | 0.895 | 0.912 | 0.894 | 0.906 |
| 191 | 0.1 | 0.896 | 0.908 | 0.901 | 0.902 | 0.900 | 0.888 | 0.898 | 0.896 | 0.904 | 0.900 | 0.898 | 0.911 | 0.901 | 0.902 | 0.900 | 0.889 | 0.897 | 0.896 | 0.905 | 0.901 |
| 192 | 0.1 | 0.902 | 0.902 | 0.894 | 0.898 | 0.901 | 0.922 | 0.892 | 0.914 | 0.901 | 0.897 | 0.903 | 0.902 | 0.895 | 0.898 | 0.901 | 0.929 | 0.894 | 0.915 | 0.901 | 0.897 |
| 193 | 0.1 | 0.899 | 0.893 | 0.900 | 0.905 | 0.898 | 0.873 | 0.910 | 0.890 | 0.896 | 0.903 | 0.899 | 0.892 | 0.899 | 0.905 | 0.898 | 0.875 | 0.909 | 0.889 | 0.897 | 0.904 |
| 194 | 0.1 | 0.880 | 0.905 | 0.898 | 0.906 | 0.901 | 0.903 | 0.900 | 0.902 | 0.904 | 0.900 | 0.881 | 0.906 | 0.898 | 0.905 | 0.901 | 0.908 | 0.897 | 0.902 | 0.904 | 0.900 |
| 195 | 0.1 | 0.952 | 0.949 | 0.949 | 0.950 | 0.950 | 0.960 | 0.956 | 0.953 | 0.948 | 0.951 | 0.952 | 0.949 | 0.949 | 0.950 | 0.950 | 0.960 | 0.956 | 0.953 | 0.948 | 0.951 |
| 196 | 0.1 | 0.953 | 0.952 | 0.949 | 0.952 | 0.950 | 0.952 | 0.954 | 0.949 | 0.954 | 0.948 | 0.952 | 0.951 | 0.950 | 0.951 | 0.950 | 0.953 | 0.954 | 0.949 | 0.955 | 0.948 |
| 197 | 0.1 | 0.952 | 0.947 | 0.951 | 0.950 | 0.950 | 0.951 | 0.947 | 0.952 | 0.948 | 0.950 | 0.951 | 0.947 | 0.952 | 0.950 | 0.950 | 0.952 | 0.946 | 0.953 | 0.948 | 0.950 |
| 198 | 0.1 | 0.952 | 0.952 | 0.952 | 0.953 | 0.951 | 0.958 | 0.955 | 0.948 | 0.949 | 0.950 | 0.952 | 0.952 | 0.952 | 0.953 | 0.951 | 0.960 | 0.954 | 0.948 | 0.949 | 0.950 |
| 199 | 0.1 | 0.953 | 0.950 | 0.949 | 0.950 | 0.950 | 0.946 | 0.954 | 0.956 | 0.947 | 0.950 | 0.953 | 0.950 | 0.949 | 0.950 | 0.950 | 0.947 | 0.953 | 0.956 | 0.947 | 0.950 |
| 200 | 0.1 | 0.944 | 0.953 | 0.950 | 0.950 | 0.950 | 0.947 | 0.949 | 0.952 | 0.949 | 0.948 | 0.944 | 0.953 | 0.950 | 0.950 | 0.950 | 0.948 | 0.948 | 0.952 | 0.949 | 0.948 |
| 201 | 0.1 | 0.945 | 0.952 | 0.950 | 0.949 | 0.950 | 0.956 | 0.955 | 0.951 | 0.951 | 0.950 | 0.944 | 0.952 | 0.950 | 0.949 | 0.950 | 0.955 | 0.954 | 0.951 | 0.951 | 0.949 |
| 202 | 0.1 | 0.951 | 0.949 | 0.948 | 0.949 | 0.950 | 0.961 | 0.951 | 0.949 | 0.952 | 0.950 | 0.951 | 0.949 | 0.948 | 0.949 | 0.950 | 0.962 | 0.952 | 0.948 | 0.951 | 0.950 |
| 203 | 0.3 | 0.689 | 0.695 | 0.699 | 0.700 | 0.698 | 0.721 | 0.685 | 0.686 | 0.699 | 0.693 | 0.689 | 0.694 | 0.699 | 0.700 | 0.698 | 0.725 | 0.688 | 0.686 | 0.699 | 0.693 |
| 204 | 0.3 | 0.699 | 0.711 | 0.701 | 0.700 | 0.701 | 0.705 | 0.706 | 0.704 | 0.701 | 0.699 | 0.703 | 0.710 | 0.701 | 0.700 | 0.701 | 0.707 | 0.709 | 0.703 | 0.700 | 0.700 |
| 205 | 0.3 | 0.692 | 0.701 | 0.694 | 0.705 | 0.698 | 0.696 | 0.713 | 0.700 | 0.705 | 0.697 | 0.690 | 0.701 | 0.694 | 0.705 | 0.698 | 0.699 | 0.717 | 0.701 | 0.704 | 0.697 |
| 206 | 0.3 | 0.695 | 0.707 | 0.695 | 0.702 | 0.700 | 0.739 | 0.685 | 0.710 | 0.699 | 0.696 | 0.695 | 0.707 | 0.695 | 0.702 | 0.700 | 0.742 | 0.686 | 0.710 | 0.699 | 0.695 |
| 207 | 0.3 | 0.702 | 0.702 | 0.694 | 0.704 | 0.700 | 0.710 | 0.700 | 0.708 | 0.705 | 0.702 | 0.697 | 0.703 | 0.693 | 0.705 | 0.700 | 0.708 | 0.696 | 0.707 | 0.705 | 0.702 |
| 208 | 0.3 | 0.710 | 0.702 | 0.692 | 0.698 | 0.702 | 0.664 | 0.705 | 0.693 | 0.699 | 0.704 | 0.710 | 0.702 | 0.692 | 0.699 | 0.702 | 0.670 | 0.706 | 0.695 | 0.700 | 0.703 |
| 209 | 0.3 | 0.689 | 0.701 | 0.697 | 0.697 | 0.698 | 0.698 | 0.699 | 0.691 | 0.695 | 0.702 | 0.690 | 0.700 | 0.698 | 0.697 | 0.698 | 0.695 | 0.700 | 0.692 | 0.694 | 0.702 |
| 210 | 0.3 | 0.704 | 0.698 | 0.704 | 0.693 | 0.698 | 0.709 | 0.708 | 0.696 | 0.700 | 0.701 | 0.705 | 0.699 | 0.703 | 0.693 | 0.698 | 0.716 | 0.707 | 0.698 | 0.700 | 0.701 |
| 211 | 0.3 | 0.847 | 0.851 | 0.850 | 0.849 | 0.851 | 0.858 | 0.848 | 0.855 | 0.851 | 0.851 | 0.847 | 0.851 | 0.850 | 0.849 | 0.851 | 0.859 | 0.849 | 0.855 | 0.852 | 0.851 |
| 212 | 0.3 | 0.847 | 0.852 | 0.849 | 0.849 | 0.851 | 0.856 | 0.853 | 0.848 | 0.851 | 0.849 | 0.848 | 0.851 | 0.849 | 0.849 | 0.851 | 0.852 | 0.854 | 0.847 | 0.851 | 0.849 |
| 213 | 0.3 | 0.849 | 0.851 | 0.850 | 0.850 | 0.849 | 0.844 | 0.853 | 0.852 | 0.848 | 0.851 | 0.850 | 0.852 | 0.850 | 0.850 | 0.849 | 0.845 | 0.853 | 0.852 | 0.848 | 0.851 |
| 214 | 0.3 | 0.852 | 0.853 | 0.849 | 0.850 | 0.850 | 0.853 | 0.843 | 0.846 | 0.850 | 0.849 | 0.853 | 0.853 | 0.849 | 0.850 | 0.850 | 0.853 | 0.845 | 0.846 | 0.850 | 0.849 |
| 215 | 0.3 | 0.850 | 0.853 | 0.854 | 0.848 | 0.850 | 0.837 | 0.849 | 0.850 | 0.852 | 0.849 | 0.851 | 0.853 | 0.854 | 0.848 | 0.850 | 0.837 | 0.848 | 0.850 | 0.852 | 0.849 |
| 216 | 0.3 | 0.853 | 0.849 | 0.850 | 0.850 | 0.850 | 0.850 | 0.854 | 0.849 | 0.849 | 0.849 | 0.854 | 0.849 | 0.849 | 0.850 | 0.850 | 0.852 | 0.854 | 0.850 | 0.849 | 0.849 |
| 217 | 0.3 | 0.854 | 0.849 | 0.849 | 0.851 | 0.849 | 0.850 | 0.853 | 0.852 | 0.850 | 0.851 | 0.852 | 0.849 | 0.849 | 0.851 | 0.849 | 0.849 | 0.854 | 0.852 | 0.850 | 0.851 |
| 218 | 0.3 | 0.848 | 0.849 | 0.846 | 0.850 | 0.850 | 0.846 | 0.847 | 0.852 | 0.845 | 0.850 | 0.848 | 0.849 | 0.846 | 0.850 | 0.850 | 0.847 | 0.847 | 0.852 | 0.845 | 0.850 |
| 219 | 0.7 | 0.285 | 0.302 | 0.304 | 0.293 | 0.296 | 0.295 | 0.304 | 0.300 | 0.305 | 0.301 | 0.288 | 0.301 | 0.304 | 0.292 | 0.296 | 0.303 | 0.301 | 0.300 | 0.306 | 0.302 |
| 220 | 0.7 | 0.311 | 0.303 | 0.300 | 0.300 | 0.298 | 0.307 | 0.309 | 0.308 | 0.294 | 0.302 | 0.309 | 0.303 | 0.299 | 0.300 | 0.298 | 0.306 | 0.313 | 0.306 | 0.295 | 0.302 |
| 221 | 0.7 | 0.653 | 0.651 | 0.647 | 0.651 | 0.650 | 0.654 | 0.651 | 0.649 | 0.646 | 0.649 | 0.654 | 0.652 | 0.647 | 0.650 | 0.650 | 0.653 | 0.650 | 0.649 | 0.646 | 0.649 |
| 222 | 0.7 | 0.654 | 0.649 | 0.646 | 0.651 | 0.650 | 0.655 | 0.654 | 0.649 | 0.649 | 0.650 | 0.654 | 0.648 | 0.646 | 0.651 | 0.650 | 0.654 | 0.655 | 0.649 | 0.649 | 0.650 |
| 223 | 0.7 | 0.652 | 0.651 | 0.651 | 0.649 | 0.650 | 0.658 | 0.648 | 0.649 | 0.651 | 0.649 | 0.651 | 0.651 | 0.651 | 0.649 | 0.650 | 0.659 | 0.647 | 0.649 | 0.651 | 0.649 |
| 224 | 0.7 | 0.646 | 0.648 | 0.651 | 0.650 | 0.650 | 0.646 | 0.643 | 0.650 | 0.652 | 0.649 | 0.647 | 0.648 | 0.651 | 0.650 | 0.650 | 0.647 | 0.644 | 0.650 | 0.652 | 0.649 |

In general, for a Level-2 HLM with small sample sizes to achieve sufficient power of 0.80 for different effect sizes this research found that:

- For effect size 0.7, Level-2 intercept parameters ($\beta_{00}$ and $\beta_{10}$) with small sample sizes achieved minimum sufficient power of 0.8 when re-sampled to 30 sample sizes per each level with initial error variance $\sigma_e^2 = 1.0$, and less than 30 sample sizes per level with initial error variance $\sigma_e^2 = 2.0$.

- Level-2 slope parameters ($\beta_{01}$ and $\beta_{11}$) with effect size 0.7 and small sample sizes achieved minimum sufficient power of 0.8 when re-sampled to 100 sample sizes per each level with initial error variance $\sigma_e^2 = 1.0$, and 50 sample sizes per level with initial error variance $\sigma_e^2 = 2.0$.

- The intercept parameters with effect size 0.3 and small sample sizes, achieved minimum power of 0.80 when re-sampled to 200 sample sizes per each level with initial error variance $\sigma_e^2 = 1.0$, and 100 sample sizes per each level with initial error variance $\sigma_e^2 = 2.0$.

- Level-2 HLM slope parameters with effect size 0.3 and small sample sizes, achieved minimum power of 0.80 when re-sampled to 200 sample sizes per each level with initial error variance $\sigma_e^2 = 1.0, 2.0$ and predictor variance $\sigma_A^2 = \sigma_X^2 = 1.0$, and $\sigma_A^2 = 1.0, \sigma_X^2 = 0.5$.

- For effect size 0.3, the slope parameters achieved minimum power of 0.80 when re-sampled to 500 sample sizes per each level with initial error variance $\sigma_e^2 = 1.0$ and predictor variance $\sigma_A^2 = 1.0, \sigma_X^2 = 0.5$, and between 200 and 500 sample sizes per each level with inital error variance $\sigma_e^2 = 2.0$.

- Both intercept and slope parameters with effect size 0.1 and initial error variance ($\sigma_e^2 = 1.0, 2.0$) did not achieve minimum sufficient power when re-sampled to 500 sample sizes per each level.

- As effect size increases from 0.1 to 0.7, the bias for all Level-2 parameters decreases for all predictor and error variances considered, and the re-sampled sample size did not affect the overall average absolute relative bias.
- The bias for initial error variance scenarios with $\sigma_e^2 = 1.0$ is less than those with $\sigma_e^2 = 2.0$.
- For the specific scenarios considered, the overall average absolute relative bias ranges from 0.60 to 0.95.

**Level-3 Re-Sampling Based HLM Recommendations.**

For the Level-3 HLM, the scenario conditions considered were: small sample sizes at each level (8 total as shown in Table 14), effect size (0.1, 0.3, 0.7), Level-1 initial variance ($\sigma_e^2 = 1.0, 2.0$), error term distributions by level (3 cases shown in Table 6), and predictor distributions by level (3 cases shown in Table 3). Of the 8 x 3 x 2 x 3 x 3 = 432 scenarios considered, 236 scenarios did not reach a minimum power of at least 0.80 from the previous chapter results (Appendix B.2). Thus, these 236 scenarios were extended to the larger sample sizes 30, 50, 100, and 200 for each level as described (for effect sizes 0.3 and 0.7, 92 scenario conditions considered). The specific conditions, scenarios, and sample size considerations are listed in Tables 23 and 24. As previously described for each scenario, 1000 Monte Carlo simulations were performed and the associated average power (Tables 25 to 27 and Figure 37 to 44) and average relative bias (Tables 28 to 30 and Figure 45 to 51) were reported.

**Table 23. Level-3 small sample sizes by level that did not have a minimum power of 0.80 for conditions 1 - 156.**

| | Sample Size by Level | | | | Predictor Distribution | | | Error Variance Distribution | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Level-1 n | Level-2 g | Level-3 h | Effect Size | Level-1 $N(0,\sigma_A^2)$ $\sigma_A^2$ | Level-2 $N(0,\sigma_X^2)$ $\sigma_X^2$ | Level-3 $N(0,\sigma_W^2)$ $\sigma_W^2$ | Level-1 $N(0,\sigma_\varepsilon^2)$ $\sigma_\varepsilon^2$ | Level-2 $N(0,\sigma_\tau^2)$ $\sigma_\tau^2$ | Level-3 $N(0,\sigma_u^2)$ $\sigma_u^2$ |
| 1 | 10 | 5 | 3 | 0.10 | 1 | 1 | 1 | 4 | 2 | 1 |
| 2 | 15 | 5 | 3 | 0.10 | 1 | 1 | 1 | 4 | 2 | 1 |
| 3 | 15 | 10 | 5 | 0.10 | 1 | 1 | 1 | 4 | 2 | 1 |
| 4 | 20 | 5 | 3 | 0.10 | 1 | 1 | 1 | 4 | 2 | 1 |
| 5 | 20 | 10 | 5 | 0.10 | 1 | 1 | 1 | 4 | 2 | 1 |
| 6 | 20 | 15 | 10 | 0.10 | 1 | 1 | 1 | 4 | 2 | 1 |
| 7 | 25 | 10 | 5 | 0.10 | 1 | 1 | 1 | 4 | 2 | 1 |
| 8 | 25 | 15 | 5 | 0.10 | 1 | 1 | 1 | 4 | 2 | 1 |
| 9 | 10 | 5 | 3 | 0.10 | 1 | 1 | 1 | 4 | 2 | 1 |
| 10 | 15 | 5 | 3 | 0.10 | 1 | 1 | 1 | 4 | 2 | 1 |
| 11 | 15 | 10 | 5 | 0.10 | 1 | 1 | 1 | 4 | 2 | 1 |
| 12 | 20 | 5 | 3 | 0.10 | 1 | 1 | 1 | 4 | 2 | 1 |
| 13 | 20 | 10 | 5 | 0.10 | 1 | 1 | 1 | 4 | 2 | 1 |
| 14 | 20 | 15 | 10 | 0.10 | 1 | 1 | 1 | 4 | 2 | 1 |
| 15 | 25 | 10 | 5 | 0.10 | 1 | 1 | 1 | 4 | 2 | 1 |
| 16 | 25 | 15 | 5 | 0.10 | 1 | 1 | 1 | 4 | 2 | 1 |
| 17 | 10 | 5 | 3 | 0.30 | 1 | 1 | 1 | 4 | 2 | 1 |
| 18 | 15 | 5 | 3 | 0.30 | 1 | 1 | 1 | 4 | 2 | 1 |
| 19 | 20 | 5 | 3 | 0.30 | 1 | 1 | 1 | 4 | 2 | 1 |
| 20 | 10 | 5 | 3 | 0.30 | 1 | 1 | 1 | 4 | 2 | 1 |
| 21 | 15 | 5 | 3 | 0.30 | 1 | 1 | 1 | 4 | 2 | 1 |
| 22 | 15 | 10 | 5 | 0.30 | 1 | 1 | 1 | 1 | 1 | 1 |
| 23 | 20 | 5 | 3 | 0.30 | 1 | 1 | 1 | 1 | 1 | 1 |
| 24 | 20 | 10 | 5 | 0.30 | 1 | 1 | 1 | 1 | 1 | 1 |
| 25 | 10 | 5 | 3 | 0.10 | 1 | 1 | 1 | 1 | 1 | 1 |
| 26 | 15 | 5 | 3 | 0.10 | 1 | 1 | 1 | 1 | 1 | 1 |
| 27 | 15 | 10 | 5 | 0.10 | 1 | 1 | 1 | 1 | 1 | 1 |
| 28 | 20 | 5 | 3 | 0.10 | 1 | 1 | 1 | 1 | 1 | 1 |
| 29 | 20 | 10 | 5 | 0.10 | 1 | 1 | 1 | 1 | 1 | 1 |
| 30 | 20 | 15 | 10 | 0.10 | 1 | 1 | 1 | 1 | 1 | 1 |
| 31 | 25 | 10 | 5 | 0.10 | 1 | 1 | 1 | 1 | 1 | 1 |
| 32 | 25 | 15 | 5 | 0.10 | 1 | 1 | 1 | 1 | 1 | 1 |
| 33 | 10 | 5 | 3 | 0.10 | 1 | 1 | 1 | 1 | 1 | 1 |
| 34 | 15 | 5 | 3 | 0.10 | 1 | 1 | 1 | 1 | 1 | 1 |
| 35 | 15 | 10 | 5 | 0.10 | 1 | 1 | 1 | 1 | 1 | 1 |
| 36 | 20 | 5 | 3 | 0.10 | 1 | 1 | 1 | 1 | 1 | 1 |
| 37 | 20 | 10 | 5 | 0.10 | 1 | 1 | 1 | 1 | 1 | 1 |
| 38 | 20 | 15 | 10 | 0.10 | 1 | 1 | 1 | 1 | 1 | 1 |
| 39 | 25 | 10 | 5 | 0.10 | 1 | 1 | 1 | 1 | 1 | 1 |
| 40 | 25 | 15 | 5 | 0.10 | 1 | 1 | 1 | 1 | 1 | 1 |
| 41 | 10 | 5 | 3 | 0.30 | 1 | 1 | 1 | 1 | 1 | 1 |
| 42 | 10 | 5 | 3 | 0.30 | 1 | 1 | 1 | 2 | 1 | 1 |
| 43 | 15 | 5 | 3 | 0.30 | 1 | 1 | 1 | 2 | 1 | 1 |
| 44 | 20 | 5 | 3 | 0.30 | 1 | 1 | 1 | 2 | 1 | 1 |
| 45 | 10 | 5 | 3 | 0.10 | 1 | 1 | 1 | 2 | 1 | 1 |
| 46 | 15 | 5 | 3 | 0.10 | 1 | 1 | 1 | 2 | 1 | 1 |
| 47 | 15 | 10 | 5 | 0.10 | 1 | 1 | 1 | 2 | 1 | 1 |
| 48 | 20 | 5 | 3 | 0.10 | 1 | 1 | 1 | 2 | 1 | 1 |
| 49 | 20 | 10 | 5 | 0.10 | 1 | 1 | 1 | 2 | 1 | 1 |
| 50 | 20 | 15 | 10 | 0.10 | 1 | 1 | 1 | 2 | 1 | 1 |
| 51 | 25 | 10 | 5 | 0.10 | 1 | 1 | 1 | 2 | 1 | 1 |
| 52 | 25 | 15 | 5 | 0.10 | 1 | 1 | 1 | 2 | 1 | 1 |
| 53 | 10 | 5 | 3 | 0.10 | 1 | 1 | 1 | 2 | 1 | 1 |
| 54 | 15 | 5 | 3 | 0.10 | 1 | 1 | 1 | 2 | 1 | 1 |
| 55 | 15 | 10 | 5 | 0.10 | 1 | 1 | 1 | 2 | 1 | 1 |
| 56 | 20 | 5 | 3 | 0.10 | 1 | 1 | 1 | 2 | 1 | 1 |
| 57 | 20 | 10 | 5 | 0.10 | 1 | 1 | 1 | 2 | 1 | 1 |
| 58 | 20 | 15 | 10 | 0.10 | 1 | 1 | 1 | 2 | 1 | 1 |
| 59 | 25 | 10 | 5 | 0.10 | 1 | 1 | 1 | 2 | 1 | 1 |
| 60 | 25 | 15 | 5 | 0.10 | 1 | 1 | 1 | 2 | 1 | 1 |
| 61 | 10 | 5 | 3 | 0.30 | 1 | 1 | 1 | 2 | 1 | 1 |
| 62 | 10 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 63 | 15 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 64 | 20 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 65 | 10 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 66 | 15 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 67 | 15 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 68 | 20 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 69 | 20 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 70 | 20 | 15 | 10 | 0.10 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 71 | 25 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 72 | 25 | 15 | 5 | 0.10 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 73 | 10 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 74 | 15 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 75 | 15 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 76 | 20 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 77 | 20 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 78 | 20 | 15 | 10 | 0.10 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 79 | 25 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 80 | 25 | 15 | 5 | 0.10 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 81 | 10 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 82 | 15 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 83 | 15 | 10 | 5 | 0.30 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 84 | 20 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 85 | 10 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 86 | 15 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 87 | 15 | 10 | 5 | 0.30 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 88 | 20 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 89 | 20 | 10 | 5 | 0.30 | 0.5 | 1 | 1 | 4 | 2 | 1 |
| 90 | 20 | 15 | 10 | 0.30 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 91 | 25 | 10 | 5 | 0.30 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 92 | 10 | 5 | 3 | 0.70 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 93 | 10 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 94 | 15 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 95 | 15 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 96 | 20 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 97 | 20 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 98 | 20 | 15 | 10 | 0.10 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 99 | 25 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 100 | 25 | 15 | 5 | 0.10 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 101 | 10 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 102 | 15 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 103 | 15 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 104 | 20 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 105 | 20 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 106 | 20 | 15 | 10 | 0.10 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 107 | 25 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 108 | 25 | 15 | 5 | 0.10 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 109 | 10 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 110 | 15 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 111 | 10 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 1 | 1 | 1 |
| 112 | 15 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 113 | 15 | 10 | 5 | 0.30 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 114 | 20 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 115 | 10 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 116 | 15 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 117 | 15 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 118 | 20 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 119 | 20 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 120 | 20 | 15 | 10 | 0.10 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 121 | 25 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 122 | 25 | 15 | 5 | 0.10 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 123 | 10 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 124 | 15 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 125 | 15 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 126 | 20 | 5 | 3 | 0.10 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 127 | 20 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 128 | 20 | 15 | 10 | 0.10 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 129 | 25 | 10 | 5 | 0.10 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 130 | 25 | 15 | 5 | 0.10 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 131 | 10 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 132 | 15 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 133 | 20 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 134 | 10 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 135 | 15 | 5 | 3 | 0.30 | 0.5 | 1 | 1 | 2 | 1 | 1 |
| 136 | 15 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 137 | 20 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 138 | 20 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 139 | 10 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 140 | 15 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 141 | 15 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 142 | 20 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 143 | 20 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 144 | 20 | 15 | 10 | 0.10 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 145 | 25 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 146 | 25 | 15 | 5 | 0.10 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 147 | 10 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 148 | 15 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 149 | 15 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 150 | 20 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 151 | 20 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 152 | 20 | 15 | 10 | 0.10 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 153 | 25 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 154 | 25 | 15 | 5 | 0.10 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 155 | 10 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 156 | 15 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |

**Table 24. Level-3 small sample sizes by level that did not have a minimum power of 0.80 for conditions 157 - 236.**

| | Sample Size by Level | | | | Predictor Distribution | | | Error Variance Distribution | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Level-1 n | Level-2 g | Level-3 h | Effect Size | Level-1 $N(0,\sigma_A^2)$ $\sigma_A^2$ | Level-2 $N(0,\sigma_X^2)$ $\sigma_X^2$ | Level-3 $N(0,\sigma_W^2)$ $\sigma_W^2$ | Level-1 $N(0,\sigma_\varepsilon^2)$ $\sigma_\varepsilon^2$ | Level-2 $N(0,\sigma_r^2)$ $\sigma_r^2$ | Level-3 $N(0,\sigma_u^2)$ $\sigma_u^2$ |
| 157 | 15 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 158 | 20 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 159 | 20 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 160 | 20 | 15 | 10 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 161 | 25 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 162 | 25 | 15 | 5 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 163 | 10 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 164 | 15 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 165 | 15 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 166 | 20 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 167 | 20 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 168 | 20 | 15 | 10 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 169 | 25 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 170 | 25 | 15 | 5 | 0.30 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 171 | 10 | 5 | 3 | 0.70 | 1 | 0.5 | 0.5 | 4 | 2 | 1 |
| 172 | 10 | 5 | 3 | 0.70 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 173 | 15 | 5 | 3 | 0.70 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 174 | 20 | 5 | 3 | 0.70 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 175 | 10 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 176 | 15 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 177 | 15 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 178 | 20 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 179 | 20 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 180 | 20 | 15 | 10 | 0.10 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 181 | 25 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 182 | 25 | 15 | 5 | 0.10 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 183 | 10 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 184 | 15 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 185 | 15 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 186 | 20 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 187 | 20 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 188 | 20 | 15 | 10 | 0.10 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 189 | 25 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 190 | 25 | 15 | 5 | 0.10 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 191 | 10 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 192 | 15 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 193 | 15 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 194 | 20 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 195 | 20 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 196 | 10 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 197 | 15 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 198 | 15 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 199 | 20 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 200 | 20 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 201 | 20 | 15 | 10 | 0.30 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 202 | 25 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 1 | 1 | 1 |
| 203 | 25 | 15 | 5 | 0.30 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 204 | 10 | 5 | 3 | 0.70 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 205 | 15 | 5 | 3 | 0.70 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 206 | 10 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 207 | 15 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 208 | 15 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 209 | 20 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 210 | 20 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 211 | 20 | 15 | 10 | 0.10 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 212 | 25 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 213 | 25 | 15 | 5 | 0.10 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 214 | 10 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 215 | 15 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 216 | 15 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 217 | 20 | 5 | 3 | 0.10 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 218 | 20 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 219 | 20 | 15 | 10 | 0.10 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 220 | 25 | 10 | 5 | 0.10 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 221 | 25 | 15 | 5 | 0.10 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 222 | 10 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 223 | 15 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 224 | 15 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 225 | 20 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 226 | 20 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 227 | 10 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 228 | 15 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 229 | 15 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 230 | 20 | 5 | 3 | 0.30 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 231 | 20 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 232 | 20 | 15 | 10 | 0.30 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 233 | 25 | 10 | 5 | 0.30 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 234 | 25 | 15 | 5 | 0.30 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 235 | 10 | 5 | 3 | 0.70 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |
| 236 | 15 | 5 | 3 | 0.70 | 1 | 0.5 | 0.5 | 2 | 1 | 1 |

The Level-3 intercept parameters ($\gamma_{000}, \gamma_{100}, \gamma_{010}, \gamma_{110}$) with small sample sizes and initial error variance $\sigma_e^2 = 1.0$ that did not have a minimum sufficient power of 0.80 (Tables 23 to 24), achieved sufficient power when re-sampled between 50 to 100 sample sizes at each level for large effect size 0.7 (Tables 25 to 27 and Figures 37,41,39,43): left-hand side in green), and for initial error variance $\sigma_e^2 = 2.0$ 30 re-sampled sample sizes at each level for effect size 0.7 (Tables 25 to 27 and Figures 37,41,39,43): right-hand side in green).

For medium effect size 0.3, the Level-3 intercept parameter $\gamma_{000}$ (Figure 37: in blue), had an average power of 0.51 and did not achieve minimum sufficient power of 0.80 when re-sampled to 200 samples at each level for initial error variance $\sigma_e^2 = 1.0$ (Tables 25 to 27 and Figure 37: left-hand side in blue). Whereas, the Level-3 intercept parameters $\gamma_{100}, \gamma_{010}, \gamma_{110}, \gamma_{100}$ (Tables 25 to 27 and Figures 41,39,43,41: in blue), achieved sufficient power of 0.80 when re-sampled to 100 sample sizes at each level for initial error variance $\sigma_e^2 = 2.0$.

Similar to the Level-2 intercept parameters, the Level-3 intercept parameters with small sample sizes that did not have a minimum power of 0.80 still did not achieve minimum sufficient power for small effect size 0.1 and initial error variance $\sigma_e^2 = 1.0$ and 2.0 (Tables 25 to 27 and Figures 37,39,49,43: in black). When small sample sizes were re-sampled to 100 sample sizes at each level, the maximum power for Level-3 intercept parameters was less than 0.20.

The Level-3 slope parameters $\gamma_{001}, \gamma_{101}, \gamma_{011}, \gamma_{111}$ with small sample sizes and initial error variance $\sigma_e^2 = 1.0$ that did not have a minimum sufficient power of 0.80 (Tables 25 to 27), had an average power of 0.70 and did not achieve sufficient power when re-sampled to 200 samples at each level for large effect size 0.7 (Tables 25 to 27 and not shown in figures). For initial error variance $\sigma_e^2 = 2.0$ and predictor variances $\sigma_A^2 = \sigma_X^2 = \sigma_W^2 = 1.0$, 200 re-sampled sample sizes at each level for effect size 0.7 were required for sufficient power of 0.80, for predictor variances $\sigma_A^2 = 0.5$ and $\sigma_X^2 = \sigma_W^2 = 1.0$, 50 re-sampled sample sizes at each level for effect size 0.7 were required for sufficient power of 0.80, and for $\sigma_A^2 = 1.0$ and $\sigma_X^2 = \sigma_W^2 = 0.5$, 100 re-sampled sample sizes at each level for effect size 0.7

were required to achieve minimum sufficient power of 0.80. That is, when predictor variance at the team and unit levels (Level-2 and Level-3) is considered half that of the individual level (Level-1), the number of sample sizes per level decreased. And the number of sample sizes required for the re-sampling to achieve sufficient power per level decreased even more when predictor variance at the individual level (Level-1) was considered half that of the team and unit level (Level-2 and Level-3).

For medium effect size 0.3, the Level-3 slope parameters had an average power of 0.75 and did not achieve minimum sufficient power of 0.80 when re-sampled to 200 samples at each level for initial error variance $\sigma_e^2 = 1.0$. Whereas, 200 re-sampled samples at each level were required for initial error variance $\sigma_e^2 = 2.0$ to achieve sufficient power of 0.80 (Tables 25 to 27 and Figures 38,40,42,44: left-hand side in blue).

The Level-2 slope parameters with small sample sizes that did not have a minimum power of 0.80 still did not achieve minimum sufficient power for small effect size 0.1 and initial error variance $\sigma_e^2 = 1.0, 2.0$, even when re-sampled to 200 samples at each level (Tables 25 to 27 and Figures 38,40,42,44: in black).

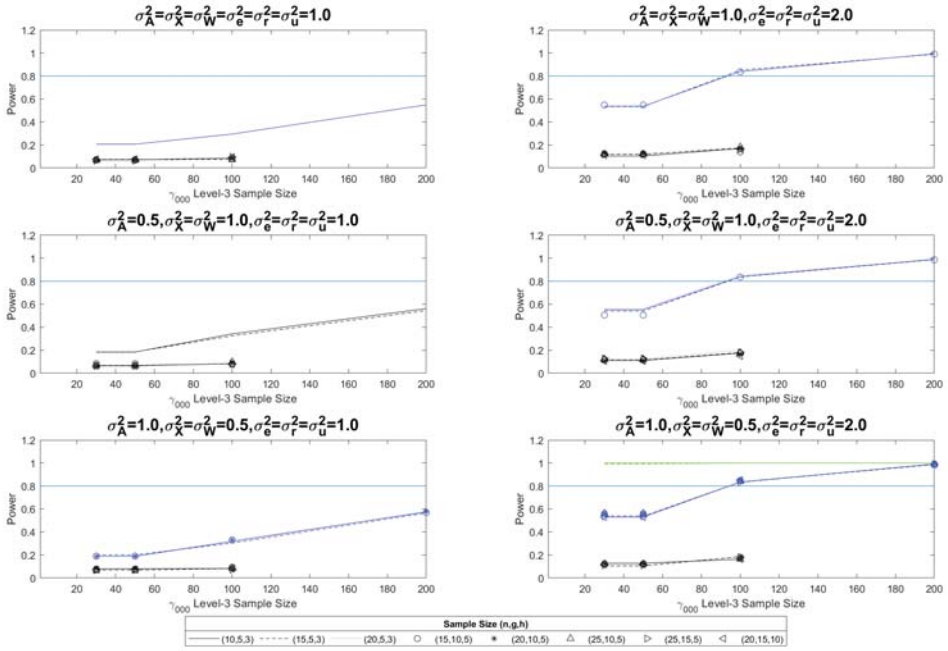


**Figure 37. Level-3 $\gamma_{000}$ re-sampled sample size power results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios with initial error variance $\sigma^2_e = \sigma^2_r = 1$ such that $\sigma^2_A = \sigma^2_X = \sigma^2_X = 1.0$ (top), $\sigma^2_A = 0.5$, $\sigma^2_X = \sigma^2_X = 1.0$ (middle), and $\sigma^2_A = 1.0$, $\sigma^2_X = \sigma^2_X = 0.5$ (bottom).**

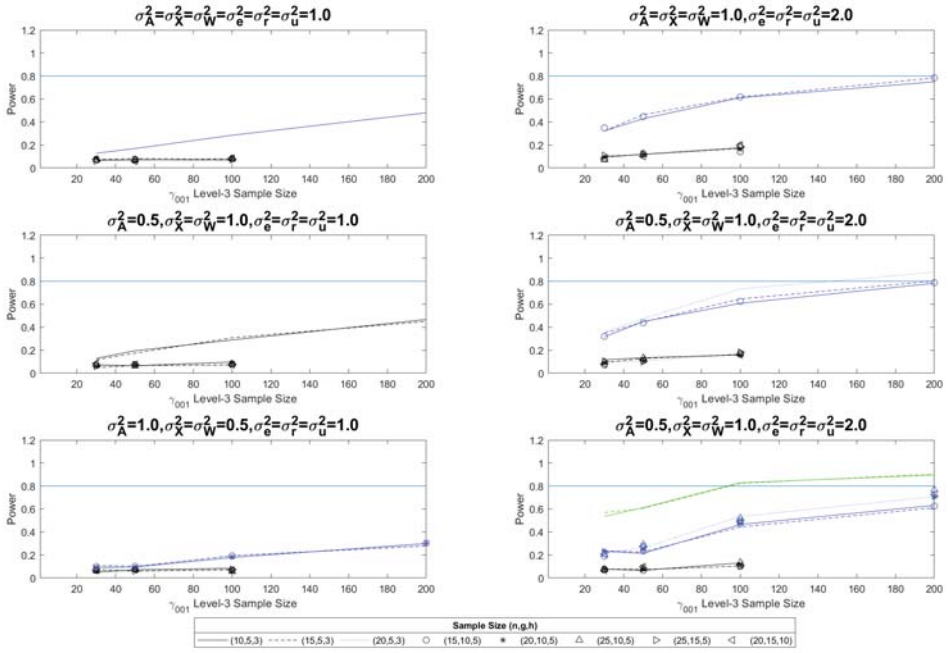


**Figure 38. Level-3 $\gamma_{001}$ re-sampled sample size power results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios with initial error variance $\sigma^2_e = \sigma^2_r = 1$ such that $\sigma^2_A = \sigma^2_X = \sigma^2_X = 1.0$ (top), $\sigma^2_A = 0.5$, $\sigma^2_X = \sigma^2_X = 1.0$ (middle), and $\sigma^2_A = 1.0$, $\sigma^2_X = \sigma^2_X = 0.5$ (bottom).**

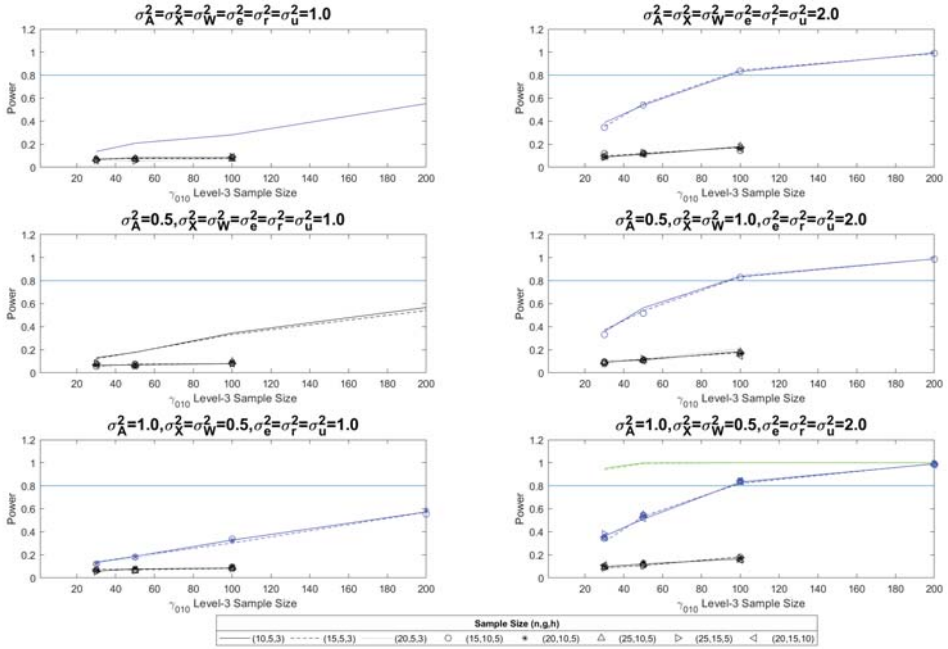


**Figure 39. Level-3 $\gamma_{010}$ re-sampled sample size power results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios with initial error variance $\sigma^2_e = \sigma^2_r = 1$ such that $\sigma^2_A = \sigma^2_X = \sigma^2_X = 1.0$ (top), $\sigma^2_A = 0.5$, $\sigma^2_X = \sigma^2_X = 1.0$ (middle), and $\sigma^2_A = 1.0$, $\sigma^2_X = \sigma^2_X = 0.5$ (bottom).**

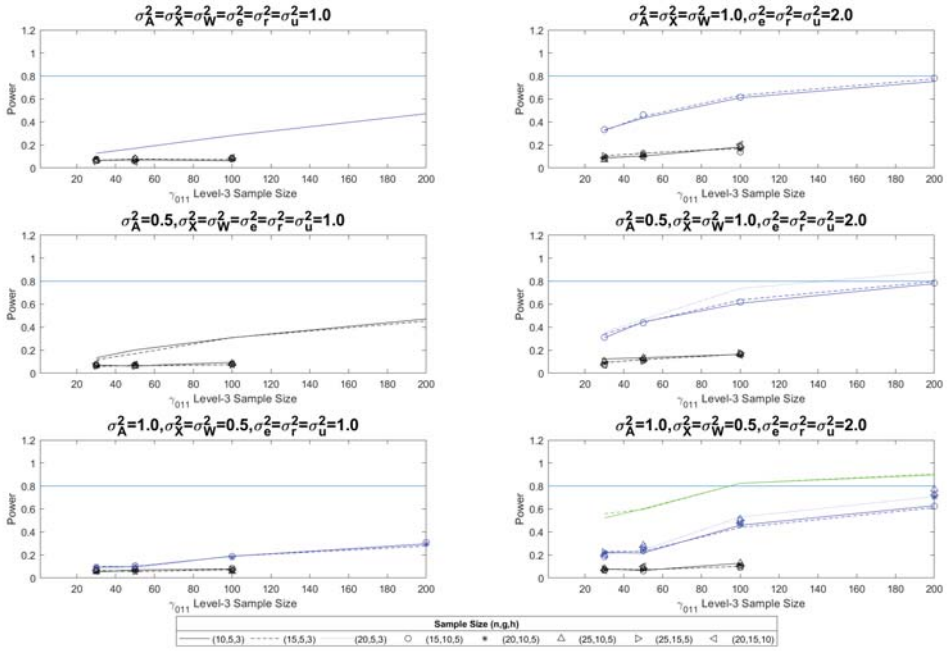


**Figure 40. Level-3 $\gamma_{011}$ re-sampled sample size power results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios with initial error variance $\sigma^2_e = \sigma^2_r = 1$ such that $\sigma^2_A = \sigma^2_X = \sigma^2_X = 1.0$ (top), $\sigma^2_A = 0.5$, $\sigma^2_X = \sigma^2_X = 1.0$ (middle), and $\sigma^2_A = 1.0$, $\sigma^2_X = \sigma^2_X = 0.5$ (bottom).**

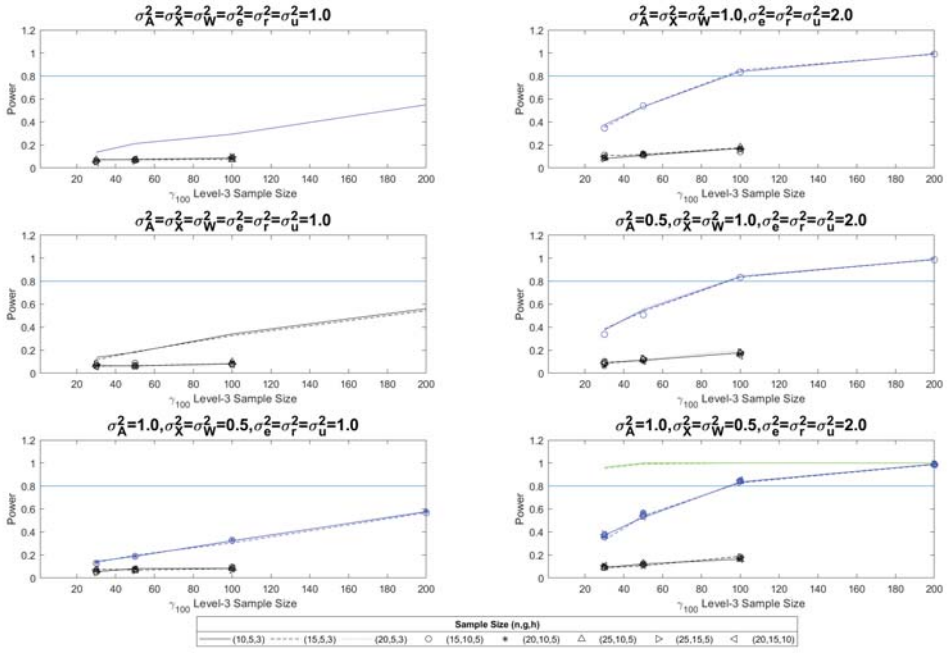


**Figure 41. Level-3 $\gamma_{100}$ re-sampled sample size power results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios with initial error variance $\sigma^2_e = \sigma^2_r = 1$ such that $\sigma^2_A = \sigma^2_X = \sigma^2_X = 1.0$ (top), $\sigma^2_A = 0.5$, $\sigma^2_X = \sigma^2_X = 1.0$ (middle), and $\sigma^2_A = 1.0$, $\sigma^2_X = \sigma^2_X = 0.5$ (bottom).**

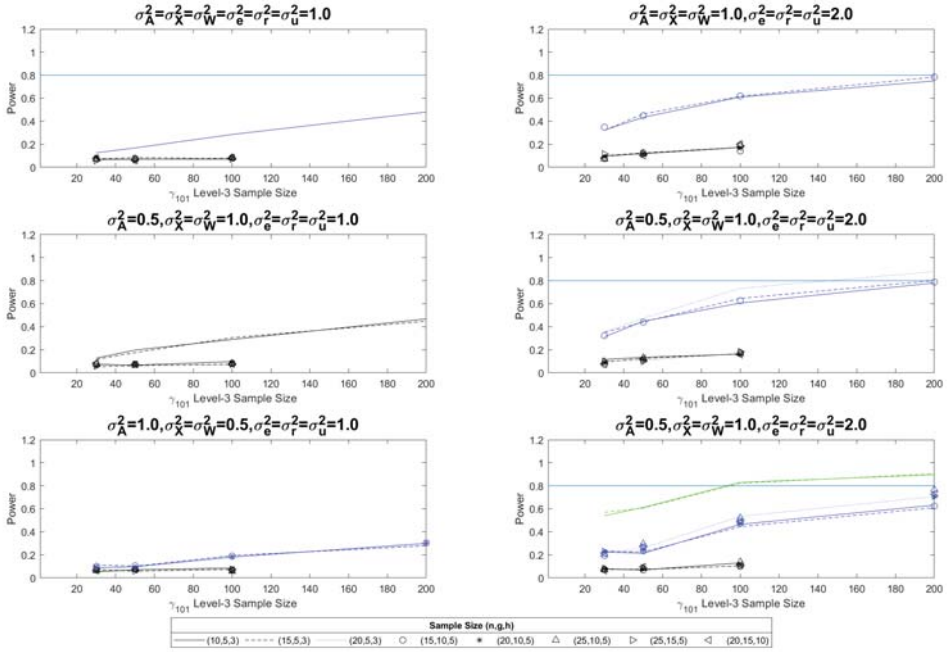


**Figure 42. Level-3 $\gamma_{101}$ re-sampled sample size power results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios with initial error variance $\sigma^2_e = \sigma^2_r = 1$ such that $\sigma^2_A = \sigma^2_X = \sigma^2_X = 1.0$ (top), $\sigma^2_A = 0.5$, $\sigma^2_X = \sigma^2_X = 1.0$ (middle), and $\sigma^2_A = 1.0$, $\sigma^2_X = \sigma^2_X = 0.5$ (bottom).**

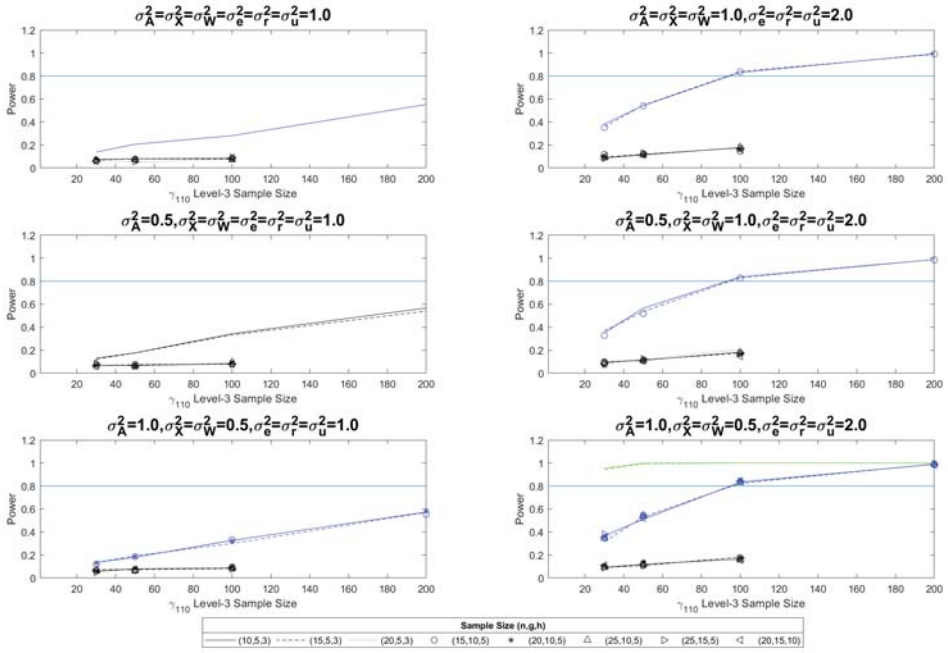


**Figure 43. Level-3 $\gamma_{110}$ re-sampled sample size power results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios with initial error variance $\sigma^2_e = \sigma^2_r = 1$ such that $\sigma^2_A = \sigma^2_X = \sigma^2_X = 1.0$ (top), $\sigma^2_A = 0.5$, $\sigma^2_X = \sigma^2_X = 1.0$ (middle), and $\sigma^2_A = 1.0$, $\sigma^2_X = \sigma^2_X = 0.5$ (bottom).**

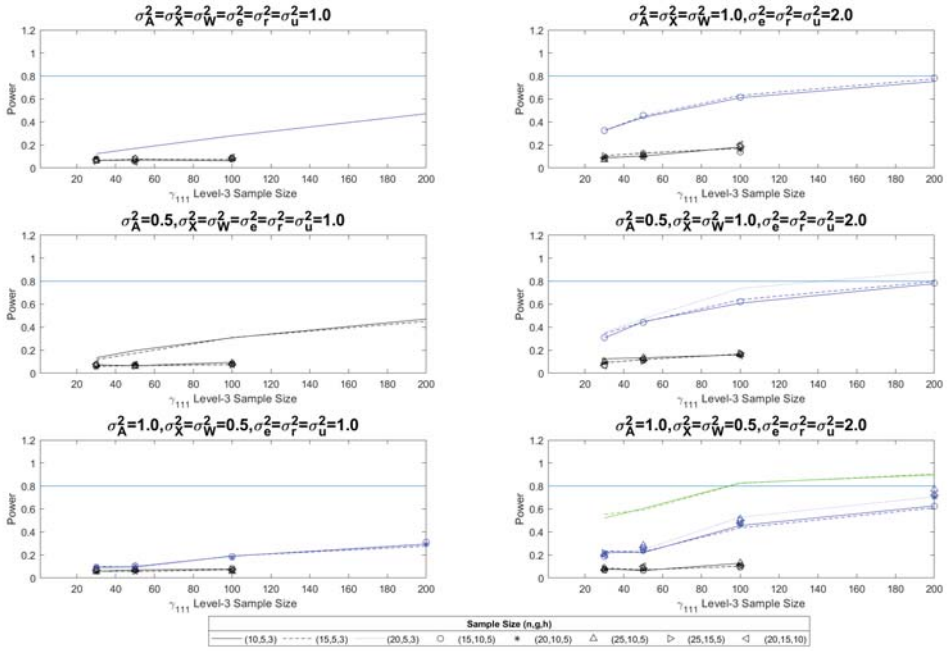


**Figure 44. Level-3 $\gamma_{111}$ re-sampled sample size power results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios with initial error variance $\sigma^2_e = \sigma^2_r = 1$ such that $\sigma^2_A = \sigma^2_X = \sigma^2_X = 1.0$ (top), $\sigma^2_A = 0.5$, $\sigma^2_X = \sigma^2_X = 1.0$ (middle), and $\sigma^2_A = 1.0$, $\sigma^2_X = \sigma^2_X = 0.5$ (bottom).**

**Table 25. Average power values for Level-3 parameters based on the re-sampled sample sizes for conditions 1 - 75. Minimum power between 0.80 and 0.90 highlighted in light green and greater than 0.90 highlighted in dark green.**

| Level-3 Parameter Power | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Effect Size | $\gamma_{000}$ | | | | $\gamma_{001}$ | | | | $\gamma_{010}$ | | | | $\gamma_{011}$ | | | | $\gamma_{100}$ | | | | $\gamma_{101}$ | | | | $\gamma_{110}$ | | | | $\gamma_{111}$ | | | |
| 1 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.08 | | 0.08 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.09 | | 0.08 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.08 | | 0.08 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.09 | |
| 2 | 0.1 | 0.09 | 0.09 | 0.08 | | 0.06 | 0.07 | 0.07 | | 0.07 | 0.08 | 0.09 | | 0.06 | 0.07 | 0.08 | | 0.08 | 0.09 | 0.08 | | 0.06 | 0.07 | 0.07 | | 0.07 | 0.08 | 0.09 | | 0.06 | 0.07 | 0.08 | |
| 3 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.07 | 0.08 | 0.09 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.07 | 0.09 | | 0.06 | 0.07 | 0.08 | | 0.07 | 0.08 | 0.09 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.07 | 0.09 | |
| 4 | 0.1 | 0.07 | 0.07 | 0.09 | | 0.07 | 0.08 | 0.09 | | 0.07 | 0.07 | 0.08 | | 0.07 | 0.08 | 0.08 | | 0.08 | 0.07 | 0.09 | | 0.07 | 0.08 | 0.09 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.08 | 0.08 | |
| 5 | 0.1 | 0.08 | 0.08 | 0.07 | | 0.07 | 0.07 | 0.08 | | 0.06 | 0.07 | 0.07 | | 0.07 | 0.08 | 0.08 | | 0.06 | 0.08 | 0.07 | | 0.07 | 0.07 | 0.08 | | 0.06 | 0.08 | 0.07 | | 0.07 | 0.07 | 0.08 | |
| 6 | 0.1 | 0.07 | 0.07 | 0.09 | | 0.05 | 0.06 | 0.07 | | 0.06 | 0.06 | 0.09 | | 0.06 | 0.07 | 0.07 | | 0.06 | 0.07 | 0.09 | | 0.05 | 0.06 | 0.07 | | 0.06 | 0.07 | 0.09 | | 0.06 | 0.07 | 0.07 | |
| 7 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.08 | 0.06 | 0.08 | | 0.05 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.08 | | 0.07 | 0.06 | 0.08 | | 0.08 | 0.06 | 0.08 | | 0.06 | 0.07 | 0.08 | | 0.07 | 0.05 | 0.08 | |
| 8 | 0.1 | 0.08 | 0.08 | 0.07 | | 0.06 | 0.08 | 0.07 | | 0.06 | 0.07 | 0.08 | | 0.06 | 0.09 | 0.08 | | 0.06 | 0.08 | 0.07 | | 0.06 | 0.08 | 0.07 | | 0.06 | 0.07 | 0.08 | | 0.06 | 0.08 | 0.08 | |
| 9 | 0.1 | 0.11 | 0.11 | 0.15 | | 0.09 | 0.11 | 0.16 | | 0.08 | 0.11 | 0.14 | | 0.10 | 0.11 | 0.16 | | 0.09 | 0.11 | 0.15 | | 0.09 | 0.11 | 0.16 | | 0.08 | 0.11 | 0.14 | | 0.09 | 0.11 | 0.16 | |
| 10 | 0.1 | 0.12 | 0.12 | 0.18 | | 0.09 | 0.10 | 0.19 | | 0.10 | 0.12 | 0.17 | | 0.09 | 0.11 | 0.19 | | 0.09 | 0.12 | 0.17 | | 0.10 | 0.10 | 0.19 | | 0.09 | 0.12 | 0.17 | | 0.10 | 0.11 | 0.20 | |
| 11 | 0.1 | 0.11 | 0.11 | 0.18 | | 0.09 | 0.12 | 0.17 | | 0.09 | 0.12 | 0.17 | | 0.09 | 0.11 | 0.17 | | 0.09 | 0.12 | 0.18 | | 0.08 | 0.12 | 0.17 | | 0.09 | 0.12 | 0.17 | | 0.09 | 0.11 | 0.17 | |
| 12 | 0.1 | 0.11 | 0.11 | 0.18 | | 0.09 | 0.11 | 0.18 | | 0.09 | 0.11 | 0.18 | | 0.09 | 0.12 | 0.18 | | 0.09 | 0.11 | 0.18 | | 0.09 | 0.11 | 0.18 | | 0.09 | 0.11 | 0.17 | | 0.09 | 0.11 | 0.19 | |
| 13 | 0.1 | 0.11 | 0.11 | 0.18 | | 0.10 | 0.12 | 0.16 | | 0.09 | 0.11 | 0.17 | | 0.10 | 0.12 | 0.16 | | 0.10 | 0.11 | 0.18 | | 0.10 | 0.12 | 0.16 | | 0.09 | 0.11 | 0.17 | | 0.10 | 0.12 | 0.16 | |
| 14 | 0.1 | 0.10 | 0.10 | 0.19 | | 0.10 | 0.12 | 0.16 | | 0.11 | 0.10 | 0.18 | | 0.09 | 0.11 | 0.16 | | 0.10 | 0.11 | 0.19 | | 0.09 | 0.12 | 0.16 | | 0.11 | 0.10 | 0.18 | | 0.08 | 0.12 | 0.16 | |
| 15 | 0.1 | 0.10 | 0.10 | 0.18 | | 0.10 | 0.12 | 0.16 | | 0.11 | 0.11 | 0.18 | | 0.10 | 0.12 | 0.16 | | 0.11 | 0.10 | 0.18 | | 0.10 | 0.12 | 0.16 | | 0.11 | 0.11 | 0.18 | | 0.10 | 0.12 | 0.16 | |
| 16 | 0.1 | 0.10 | 0.10 | 0.17 | | 0.10 | 0.12 | 0.18 | | 0.09 | 0.10 | 0.17 | | 0.09 | 0.12 | 0.18 | | 0.08 | 0.10 | 0.18 | | 0.10 | 0.13 | 0.18 | | 0.09 | 0.10 | 0.17 | | 0.08 | 0.12 | 0.18 | |
| 17 | 0.3 | 0.20 | 0.20 | 0.33 | 0.59 | 0.14 | 0.18 | 0.28 | 0.45 | 0.13 | 0.20 | 0.34 | 0.58 | 0.13 | 0.18 | 0.27 | 0.45 | 0.13 | 0.20 | 0.33 | 0.59 | 0.13 | 0.18 | 0.28 | 0.44 | 0.13 | 0.20 | 0.34 | 0.58 | 0.13 | 0.19 | 0.27 | 0.45 |
| 18 | 0.3 | 0.18 | 0.18 | 0.28 | 0.57 | 0.14 | 0.15 | 0.31 | 0.45 | 0.13 | 0.18 | 0.29 | 0.57 | 0.13 | 0.16 | 0.31 | 0.45 | 0.15 | 0.18 | 0.28 | 0.57 | 0.14 | 0.15 | 0.30 | 0.45 | 0.14 | 0.17 | 0.29 | 0.57 | 0.13 | 0.16 | 0.31 | 0.45 |
| 19 | 0.3 | 0.17 | 0.17 | 0.33 | 0.58 | 0.14 | 0.19 | 0.29 | 0.46 | 0.13 | 0.16 | 0.31 | 0.56 | 0.14 | 0.19 | 0.29 | 0.47 | 0.13 | 0.17 | 0.33 | 0.58 | 0.14 | 0.20 | 0.29 | 0.46 | 0.13 | 0.16 | 0.31 | 0.57 | 0.14 | 0.19 | 0.29 | 0.47 |
| 20 | 0.3 | 0.56 | 0.56 | 0.85 | 0.99 | 0.32 | 0.46 | 0.61 | 0.79 | 0.36 | 0.56 | 0.85 | 0.99 | 0.31 | 0.45 | 0.60 | 0.79 | 0.37 | 0.56 | 0.85 | 0.99 | 0.31 | 0.46 | 0.61 | 0.79 | 0.36 | 0.56 | 0.85 | 0.99 | 0.31 | 0.45 | 0.61 | 0.79 |
| 21 | 0.3 | 0.54 | 0.54 | 0.83 | 0.99 | 0.31 | 0.46 | 0.61 | 0.75 | 0.35 | 0.55 | 0.84 | 0.99 | 0.30 | 0.45 | 0.60 | 0.75 | 0.36 | 0.55 | 0.83 | 0.99 | 0.30 | 0.46 | 0.61 | 0.75 | 0.35 | 0.55 | 0.84 | 0.99 | 0.30 | 0.45 | 0.60 | 0.75 |
| 22 | 0.3 | 0.54 | 0.54 | 0.84 | 0.99 | 0.33 | 0.47 | 0.74 | 0.89 | 0.35 | 0.54 | 0.84 | 0.99 | 0.33 | 0.47 | 0.73 | 0.89 | 0.37 | 0.54 | 0.84 | 0.99 | 0.33 | 0.47 | 0.74 | 0.89 | 0.35 | 0.54 | 0.84 | 0.99 | 0.33 | 0.47 | 0.73 | 0.89 |
| 23 | 0.3 | 0.55 | 0.55 | 0.85 | 0.99 | 0.31 | 0.44 | 0.64 | 0.79 | 0.38 | 0.54 | 0.86 | 0.99 | 0.31 | 0.44 | 0.63 | 0.79 | 0.38 | 0.54 | 0.85 | 0.99 | 0.31 | 0.44 | 0.64 | 0.79 | 0.39 | 0.54 | 0.85 | 0.99 | 0.32 | 0.44 | 0.63 | 0.79 |
| 24 | 0.3 | 0.55 | 0.55 | 0.84 | 0.99 | 0.35 | 0.48 | 0.71 | 0.87 | 0.35 | 0.53 | 0.84 | 0.99 | 0.35 | 0.48 | 0.70 | 0.87 | 0.35 | 0.54 | 0.84 | 0.99 | 0.36 | 0.48 | 0.71 | 0.87 | 0.35 | 0.53 | 0.83 | 0.99 | 0.35 | 0.48 | 0.71 | 0.87 |
| 25 | 0.1 | 0.07 | 0.07 | 0.09 | | 0.07 | 0.07 | 0.07 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.07 | 0.06 | | 0.07 | 0.08 | 0.09 | | 0.07 | 0.07 | 0.07 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.07 | 0.06 | |
| 26 | 0.1 | 0.08 | 0.08 | 0.07 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.08 | 0.07 | | 0.07 | 0.07 | 0.07 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.08 | 0.07 | |
| 27 | 0.1 | 0.06 | 0.06 | 0.08 | | 0.06 | 0.07 | 0.09 | | 0.07 | 0.05 | 0.08 | | 0.07 | 0.07 | 0.08 | | 0.08 | 0.06 | 0.08 | | 0.06 | 0.07 | 0.08 | | 0.07 | 0.05 | 0.08 | | 0.07 | 0.07 | 0.08 | |
| 28 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.08 | 0.08 | 0.08 | | 0.07 | 0.07 | 0.08 | | 0.08 | 0.08 | 0.08 | | 0.06 | 0.07 | 0.08 | | 0.08 | 0.08 | 0.08 | | 0.06 | 0.08 | 0.08 | | 0.08 | 0.08 | 0.08 | |
| 29 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.08 | 0.05 | 0.08 | | 0.07 | 0.07 | 0.08 | | 0.08 | 0.05 | 0.08 | | 0.07 | 0.07 | 0.08 | | 0.09 | 0.05 | 0.08 | | 0.07 | 0.07 | 0.08 | | 0.08 | 0.05 | 0.08 | |
| 30 | 0.1 | 0.07 | 0.07 | 0.07 | | 0.07 | 0.07 | 0.08 | | 0.07 | 0.08 | 0.07 | | 0.06 | 0.08 | 0.08 | | 0.07 | 0.07 | 0.07 | | 0.07 | 0.07 | 0.08 | | 0.07 | 0.07 | 0.07 | | 0.06 | 0.08 | 0.08 | |
| 31 | 0.1 | 0.06 | 0.06 | 0.10 | | 0.06 | 0.07 | 0.07 | | 0.06 | 0.06 | 0.09 | | 0.06 | 0.07 | 0.08 | | 0.06 | 0.06 | 0.10 | | 0.06 | 0.07 | 0.07 | | 0.06 | 0.06 | 0.09 | | 0.06 | 0.07 | 0.08 | |
| 32 | 0.1 | 0.08 | 0.08 | 0.09 | | 0.07 | 0.06 | 0.08 | | 0.06 | 0.07 | 0.09 | | 0.07 | 0.05 | 0.09 | | 0.05 | 0.08 | 0.09 | | 0.08 | 0.06 | 0.08 | | 0.06 | 0.07 | 0.09 | | 0.07 | 0.05 | 0.09 | |
| 33 | 0.1 | 0.10 | 0.10 | 0.17 | | 0.10 | 0.12 | 0.17 | | 0.09 | 0.11 | 0.18 | | 0.09 | 0.10 | 0.18 | | 0.08 | 0.11 | 0.17 | | 0.10 | 0.12 | 0.17 | | 0.09 | 0.11 | 0.18 | | 0.09 | 0.10 | 0.18 | |
| 34 | 0.1 | 0.12 | 0.12 | 0.18 | | 0.10 | 0.12 | 0.17 | | 0.10 | 0.12 | 0.17 | | 0.11 | 0.13 | 0.17 | | 0.11 | 0.12 | 0.18 | | 0.10 | 0.12 | 0.17 | | 0.10 | 0.12 | 0.18 | | 0.11 | 0.13 | 0.17 | |
| 35 | 0.1 | 0.12 | 0.12 | 0.17 | | 0.09 | 0.12 | 0.18 | | 0.08 | 0.12 | 0.17 | | 0.08 | 0.13 | 0.18 | | 0.08 | 0.13 | 0.17 | | 0.09 | 0.12 | 0.18 | | 0.08 | 0.12 | 0.17 | | 0.07 | 0.13 | 0.17 | |
| 36 | 0.1 | 0.12 | 0.12 | 0.14 | | 0.08 | 0.13 | 0.14 | | 0.12 | 0.12 | 0.15 | | 0.08 | 0.13 | 0.14 | | 0.11 | 0.12 | 0.14 | | 0.08 | 0.13 | 0.14 | | 0.12 | 0.12 | 0.15 | | 0.08 | 0.13 | 0.14 | |
| 37 | 0.1 | 0.13 | 0.13 | 0.17 | | 0.10 | 0.12 | 0.16 | | 0.09 | 0.11 | 0.16 | | 0.09 | 0.11 | 0.16 | | 0.09 | 0.13 | 0.17 | | 0.09 | 0.11 | 0.17 | | 0.09 | 0.11 | 0.16 | | 0.09 | 0.11 | 0.16 | |
| 38 | 0.1 | 0.12 | 0.12 | 0.18 | | 0.07 | 0.12 | 0.19 | | 0.09 | 0.11 | 0.18 | | 0.07 | 0.12 | 0.19 | | 0.09 | 0.12 | 0.18 | | 0.07 | 0.12 | 0.19 | | 0.09 | 0.11 | 0.18 | | 0.07 | 0.11 | 0.19 | |
| 39 | 0.1 | 0.12 | 0.12 | 0.16 | | 0.11 | 0.12 | 0.19 | | 0.09 | 0.13 | 0.17 | | 0.10 | 0.11 | 0.18 | | 0.08 | 0.12 | 0.16 | | 0.11 | 0.11 | 0.19 | | 0.09 | 0.13 | 0.17 | | 0.10 | 0.10 | 0.19 | |
| 40 | 0.1 | 0.11 | 0.11 | 0.17 | | 0.08 | 0.10 | 0.20 | | 0.10 | 0.12 | 0.17 | | 0.09 | 0.10 | 0.20 | | 0.10 | 0.11 | 0.17 | | 0.08 | 0.10 | 0.20 | | 0.10 | 0.12 | 0.16 | | 0.09 | 0.10 | 0.20 | |
| 41 | 0.3 | 0.21 | 0.21 | 0.30 | 0.55 | 0.13 | 0.17 | 0.29 | 0.48 | 0.14 | 0.21 | 0.28 | 0.55 | 0.13 | 0.17 | 0.28 | 0.47 | 0.14 | 0.21 | 0.29 | 0.55 | 0.13 | 0.17 | 0.29 | 0.48 | 0.14 | 0.21 | 0.28 | 0.55 | 0.12 | 0.17 | 0.28 | 0.47 |
| 42 | 0.3 | 0.54 | 0.54 | 0.84 | 0.99 | 0.32 | 0.43 | 0.61 | 0.75 | 0.39 | 0.54 | 0.83 | 0.99 | 0.33 | 0.43 | 0.61 | 0.75 | 0.38 | 0.53 | 0.84 | 0.99 | 0.32 | 0.43 | 0.61 | 0.75 | 0.38 | 0.54 | 0.83 | 0.99 | 0.33 | 0.44 | 0.61 | 0.75 |
| 43 | 0.3 | 0.53 | 0.53 | 0.85 | 0.99 | 0.32 | 0.46 | 0.62 | 0.78 | 0.35 | 0.55 | 0.84 | 0.99 | 0.32 | 0.45 | 0.63 | 0.78 | 0.35 | 0.53 | 0.85 | 0.99 | 0.32 | 0.46 | 0.62 | 0.78 | 0.36 | 0.55 | 0.84 | 0.99 | 0.33 | 0.45 | 0.63 | 0.78 |
| 44 | 0.3 | 0.55 | 0.55 | 0.84 | 0.99 | 0.35 | 0.45 | 0.62 | 0.78 | 0.35 | 0.54 | 0.84 | 0.99 | 0.33 | 0.46 | 0.62 | 0.78 | 0.35 | 0.54 | 0.84 | 0.99 | 0.35 | 0.45 | 0.62 | 0.78 | 0.35 | 0.54 | 0.84 | 0.99 | 0.33 | 0.46 | 0.62 | 0.78 |
| 45 | 0.1 | 0.08 | 0.08 | 0.08 | | 0.05 | 0.07 | 0.10 | | 0.07 | 0.08 | 0.08 | | 0.05 | 0.07 | 0.10 | | 0.06 | 0.08 | 0.08 | | 0.05 | 0.07 | 0.10 | | 0.07 | 0.08 | 0.08 | | 0.05 | 0.08 | 0.10 | |
| 46 | 0.1 | 0.07 | 0.07 | 0.07 | | 0.07 | 0.07 | 0.09 | | 0.07 | 0.08 | 0.07 | | 0.06 | 0.07 | 0.09 | | 0.07 | 0.08 | 0.07 | | 0.06 | 0.07 | 0.09 | | 0.07 | 0.08 | 0.07 | | 0.06 | 0.07 | 0.09 | |
| 47 | 0.1 | 0.06 | 0.06 | 0.08 | | 0.07 | 0.06 | 0.09 | | 0.07 | 0.06 | 0.07 | | 0.06 | 0.07 | 0.09 | | 0.07 | 0.06 | 0.08 | | 0.07 | 0.06 | 0.09 | | 0.07 | 0.06 | 0.07 | | 0.06 | 0.07 | 0.09 | |
| 48 | 0.1 | 0.07 | 0.07 | 0.09 | | 0.07 | 0.07 | 0.08 | | 0.06 | 0.06 | 0.09 | | 0.08 | 0.07 | 0.08 | | 0.06 | 0.07 | 0.09 | | 0.07 | 0.07 | 0.08 | | 0.06 | 0.06 | 0.09 | | 0.08 | 0.07 | 0.08 | |
| 49 | 0.1 | 0.09 | 0.09 | 0.08 | | 0.07 | 0.08 | 0.09 | | 0.05 | 0.08 | 0.08 | | 0.07 | 0.08 | 0.09 | | 0.06 | 0.09 | 0.08 | | 0.06 | 0.08 | 0.09 | | 0.05 | 0.08 | 0.08 | | 0.06 | 0.08 | 0.08 | |
| 50 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.08 | 0.08 | 0.08 | | 0.07 | 0.07 | 0.09 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.07 | 0.08 | | 0.08 | 0.08 | 0.08 | | 0.07 | 0.07 | 0.09 | | 0.08 | 0.08 | 0.08 | |
| 51 | 0.1 | 0.06 | 0.06 | 0.09 | | 0.07 | 0.06 | 0.09 | | 0.06 | 0.07 | 0.09 | | 0.07 | 0.07 | 0.09 | | 0.07 | 0.06 | 0.09 | | 0.06 | 0.06 | 0.09 | | 0.06 | 0.06 | 0.09 | | 0.06 | 0.07 | 0.09 | |
| 52 | 0.1 | 0.08 | 0.08 | 0.08 | | 0.07 | 0.08 | 0.08 | | 0.06 | 0.06 | 0.08 | | 0.07 | 0.08 | 0.08 | | 0.06 | 0.08 | 0.08 | | 0.07 | 0.08 | 0.08 | | 0.06 | 0.06 | 0.08 | | 0.07 | 0.08 | 0.08 | |
| 53 | 0.1 | 0.12 | 0.12 | 0.18 | | 0.09 | 0.11 | 0.19 | | 0.09 | 0.12 | 0.18 | | 0.09 | 0.11 | 0.19 | | 0.08 | 0.13 | 0.18 | | 0.09 | 0.11 | 0.19 | | 0.09 | 0.12 | 0.18 | | 0.09 | 0.11 | 0.19 | |
| 54 | 0.1 | 0.12 | 0.12 | 0.17 | | 0.08 | 0.11 | 0.16 | | 0.09 | 0.12 | 0.17 | | 0.09 | 0.11 | 0.16 | | 0.09 | 0.12 | 0.17 | | 0.09 | 0.11 | 0.16 | | 0.09 | 0.12 | 0.17 | | 0.09 | 0.11 | 0.17 | |
| 55 | 0.1 | 0.12 | 0.12 | 0.17 | | 0.09 | 0.11 | 0.16 | | 0.09 | 0.12 | 0.16 | | 0.10 | 0.11 | 0.16 | | 0.09 | 0.11 | 0.16 | | 0.09 | 0.11 | 0.16 | | 0.09 | 0.11 | 0.16 | | 0.10 | 0.12 | 0.16 | |
| 56 | 0.1 | 0.14 | 0.14 | 0.16 | | 0.10 | 0.10 | 0.18 | | 0.10 | 0.14 | 0.16 | | 0.09 | 0.10 | 0.18 | | 0.10 | 0.14 | 0.16 | | 0.11 | 0.10 | 0.18 | | 0.10 | 0.14 | 0.16 | | 0.09 | 0.10 | 0.17 | |
| 57 | 0.1 | 0.11 | 0.11 | 0.17 | | 0.09 | 0.11 | 0.18 | | 0.10 | 0.11 | 0.17 | | 0.09 | 0.12 | 0.16 | | 0.09 | 0.11 | 0.17 | | 0.09 | 0.11 | 0.18 | | 0.10 | 0.11 | 0.17 | | 0.09 | 0.12 | 0.16 | |
| 58 | 0.1 | 0.09 | 0.09 | 0.17 | | 0.08 | 0.12 | 0.17 | | 0.09 | 0.10 | 0.16 | | 0.09 | 0.11 | 0.18 | | 0.09 | 0.10 | 0.16 | | 0.08 | 0.12 | 0.18 | | 0.09 | 0.09 | 0.16 | | 0.09 | 0.11 | 0.18 | |
| 59 | 0.1 | 0.12 | 0.12 | 0.17 | | 0.09 | 0.10 | 0.16 | | 0.09 | 0.12 | 0.17 | | 0.09 | 0.10 | 0.17 | | 0.08 | 0.12 | 0.17 | | 0.10 | 0.10 | 0.16 | | 0.09 | 0.11 | 0.17 | | 0.09 | 0.10 | 0.17 | |
| 60 | 0.1 | 0.10 | 0.10 | 0.19 | | 0.09 | 0.12 | 0.19 | | 0.09 | 0.11 | 0.18 | | 0.09 | 0.12 | 0.19 | | 0.08 | 0.10 | 0.19 | | 0.09 | 0.12 | 0.19 | | 0.09 | 0.11 | 0.18 | | 0.09 | 0.12 | 0.19 | |
| 61 | 0.3 | 0.18 | 0.18 | 0.31 | 0.55 | 0.12 | 0.21 | 0.30 | 0.46 | 0.14 | 0.19 | 0.31 | 0.55 | 0.12 | 0.20 | 0.30 | 0.46 | 0.13 | 0.18 | 0.31 | 0.55 | 0.12 | 0.21 | 0.30 | 0.46 | 0.14 | 0.19 | 0.31 | 0.55 | 0.12 | 0.20 | 0.30 | 0.46 |
| 62 | 0.3 | 0.55 | 0.55 | 0.83 | 0.98 | 0.32 | 0.45 | 0.64 | 0.78 | 0.36 | 0.55 | 0.82 | 0.98 | 0.32 | 0.46 | 0.64 | 0.79 | 0.35 | 0.55 | 0.83 | 0.98 | 0.32 | 0.46 | 0.64 | 0.78 | 0.36 | 0.55 | 0.82 | 0.98 | 0.33 | 0.46 | 0.64 | 0.79 |
| 63 | 0.3 | 0.56 | 0.56 | 0.85 | 0.99 | 0.35 | 0.42 | 0.64 | 0.78 | 0.37 | 0.57 | 0.84 | 0.99 | 0.35 | 0.44 | 0.65 | 0.77 | 0.37 | 0.57 | 0.85 | 0.99 | 0.35 | 0.42 | 0.64 | 0.77 | 0.37 | 0.57 | 0.85 | 0.99 | 0.35 | 0.44 | 0.65 | 0.77 |
| 64 | 0.3 | 0.54 | 0.54 | 0.85 | 0.99 | 0.34 | 0.44 | 0.65 | 0.81 | 0.38 | 0.54 | 0.84 | 0.99 | 0.34 | 0.43 | 0.65 | 0.81 | 0.39 | 0.55 | 0.85 | 0.99 | 0.34 | 0.43 | 0.65 | 0.81 | 0.38 | 0.54 | 0.84 | 0.99 | 0.34 | 0.43 | 0.65 | 0.81 |
| 65 | 0.1 | 0.08 | 0.08 | 0.08 | | 0.07 | 0.07 | 0.07 | | 0.07 | 0.07 | 0.08 | | 0.06 | 0.07 | 0.08 | | 0.07 | 0.08 | 0.08 | | 0.06 | 0.07 | 0.07 | | 0.07 | 0.07 | 0.08 | | 0.06 | 0.07 | 0.08 | |
| 66 | 0.1 | 0.05 | 0.05 | 0.08 | | 0.06 | 0.07 | 0.09 | | 0.08 | 0.05 | 0.08 | | 0.05 | 0.08 | 0.09 | | 0.09 | 0.05 | 0.08 | | 0.06 | 0.07 | 0.09 | | 0.08 | 0.05 | 0.08 | | 0.05 | 0.08 | 0.09 | |
| 67 | 0.1 | 0.07 | 0.07 | 0.07 | | 0.09 | 0.06 | 0.07 | | 0.07 | 0.08 | 0.08 | | 0.08 | 0.06 | 0.08 | | 0.09 | 0.07 | 0.07 | | 0.09 | 0.06 | 0.07 | | 0.07 | 0.08 | 0.08 | | 0.08 | 0.06 | 0.08 | |
| 68 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.08 | 0.06 | 0.08 | | 0.08 | 0.07 | 0.09 | | 0.08 | 0.07 | 0.08 | | 0.08 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.08 | | 0.08 | 0.07 | 0.09 | | 0.08 | 0.07 | 0.08 | |
| 69 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.08 | 0.07 | 0.09 | | 0.06 | 0.07 | 0.08 | | 0.07 | 0.05 | 0.08 | | 0.07 | 0.07 | 0.08 | | 0.08 | 0.06 | 0.09 | | 0.06 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.09 | |
| 70 | 0.1 | 0.08 | 0.08 | 0.08 | | 0.08 | 0.08 | 0.09 | | 0.07 | 0.08 | 0.08 | | 0.08 | 0.08 | 0.09 | | 0.07 | 0.08 | 0.08 | | 0.08 | 0.08 | 0.08 | | 0.07 | 0.08 | 0.08 | | 0.08 | 0.07 | 0.09 | |
| 71 | 0.1 | 0.06 | 0.06 | 0.07 | | 0.06 | 0.06 | 0.07 | | 0.07 | 0.06 | 0.07 | | 0.06 | 0.06 | 0.07 | | 0.07 | 0.06 | 0.07 | | 0.06 | 0.06 | 0.07 | | 0.07 | 0.06 | 0.07 | | 0.05 | 0.07 | 0.07 | |
| 72 | 0.1 | 0.07 | 0.07 | 0.09 | | 0.08 | 0.07 | 0.08 | | 0.07 | 0.07 | 0.09 | | 0.08 | 0.07 | 0.09 | | 0.07 | 0.07 | 0.09 | | 0.07 | 0.07 | 0.08 | | 0.07 | 0.07 | 0.09 | | 0.08 | 0.07 | 0.09 | |
| 73 | 0.1 | 0.11 | 0.11 | 0.20 | | 0.10 | 0.11 | 0.16 | | 0.09 | 0.11 | 0.19 | | 0.10 | 0.12 | 0.16 | | 0.10 | 0.12 | 0.19 | | 0.09 | 0.11 | 0.16 | | 0.09 | 0.11 | 0.19 | | 0.10 | 0.12 | 0.16 | |
| 74 | 0.1 | 0.12 | 0.12 | 0.18 | | 0.10 | 0.10 | 0.17 | | 0.10 | 0.12 | 0.18 | | 0.11 | 0.10 | 0.17 | | 0.09 | 0.12 | 0.17 | | 0.10 | 0.10 | 0.17 | | 0.10 | 0.12 | 0.18 | | 0.11 | 0.10 | 0.18 | |
| 75 | 0.1 | 0.12 | 0.12 | 0.17 | | 0.10 | 0.11 | 0.17 | | 0.09 | 0.12 | 0.17 | | 0.11 | 0.10 | 0.17 | | 0.09 | 0.12 | 0.17 | | 0.10 | 0.10 | 0.17 | | 0.09 | 0.12 | 0.17 | | 0.11 | 0.10 | 0.17 | |

**Table 26. Average power values for Level-3 parameters based on the re-sampled sample sizes for conditions 76 - 150. Minimum power between 0.80 and 0.90 highlighted in light green and greater than 0.90 highlighted in dark green.**

| | | Level-3 Parameter Power | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Effect Size | $\gamma_{000}$ | | | | $\gamma_{001}$ | | | | $\gamma_{010}$ | | | | $\gamma_{011}$ | | | | $\gamma_{100}$ | | | | $\gamma_{101}$ | | | | $\gamma_{110}$ | | | | $\gamma_{111}$ | | | |
| 76 | 0.1 | 0.14 | 0.14 | 0.17 | | 0.07 | 0.10 | 0.18 | | 0.10 | 0.13 | 0.17 | | 0.09 | 0.12 | 0.17 | | 0.10 | 0.14 | 0.17 | | 0.07 | 0.10 | 0.18 | | 0.10 | 0.13 | 0.17 | | 0.09 | 0.11 | 0.18 | |
| 77 | 0.1 | 0.11 | 0.11 | 0.18 | | 0.09 | 0.11 | 0.16 | | 0.09 | 0.10 | 0.18 | | 0.08 | 0.11 | 0.16 | | 0.08 | 0.11 | 0.17 | | 0.09 | 0.12 | 0.15 | | 0.08 | 0.10 | 0.18 | | 0.09 | 0.11 | 0.16 | |
| 78 | 0.1 | 0.12 | 0.12 | 0.16 | | 0.09 | 0.10 | 0.16 | | 0.10 | 0.12 | 0.17 | | 0.10 | 0.10 | 0.16 | | 0.10 | 0.12 | 0.16 | | 0.09 | 0.10 | 0.16 | | 0.10 | 0.12 | 0.17 | | 0.09 | 0.11 | 0.16 | |
| 79 | 0.1 | 0.12 | 0.12 | 0.18 | | 0.08 | 0.10 | 0.19 | | 0.10 | 0.11 | 0.18 | | 0.09 | 0.09 | 0.18 | | 0.09 | 0.11 | 0.18 | | 0.08 | 0.10 | 0.19 | | 0.10 | 0.11 | 0.18 | | 0.08 | 0.10 | 0.18 | |
| 80 | 0.1 | 0.10 | 0.10 | 0.16 | | 0.08 | 0.12 | 0.18 | | 0.09 | 0.09 | 0.16 | | 0.10 | 0.11 | 0.18 | | 0.09 | 0.10 | 0.16 | | 0.08 | 0.11 | 0.18 | | 0.09 | 0.09 | 0.16 | | 0.10 | 0.11 | 0.18 | |
| 81 | 0.3 | 0.18 | 0.18 | 0.31 | 0.57 | 0.11 | 0.18 | 0.31 | 0.47 | 0.14 | 0.18 | 0.32 | 0.57 | 0.11 | 0.19 | 0.32 | 0.48 | 0.14 | 0.18 | 0.31 | 0.57 | 0.11 | 0.18 | 0.31 | 0.47 | 0.14 | 0.18 | 0.31 | 0.57 | 0.10 | 0.19 | 0.32 | 0.48 |
| 82 | 0.3 | 0.18 | 0.18 | 0.29 | 0.55 | 0.14 | 0.17 | 0.32 | 0.44 | 0.13 | 0.17 | 0.30 | 0.56 | 0.14 | 0.16 | 0.31 | 0.46 | 0.15 | 0.18 | 0.30 | 0.55 | 0.15 | 0.17 | 0.32 | 0.44 | 0.14 | 0.18 | 0.30 | 0.56 | 0.14 | 0.16 | 0.31 | 0.46 |
| 83 | 0.3 | 0.20 | 0.20 | 0.31 | 0.57 | 0.12 | 0.18 | 0.30 | 0.49 | 0.14 | 0.19 | 0.32 | 0.57 | 0.13 | 0.19 | 0.30 | 0.49 | 0.12 | 0.20 | 0.31 | 0.57 | 0.13 | 0.18 | 0.30 | 0.49 | 0.14 | 0.20 | 0.33 | 0.57 | 0.13 | 0.19 | 0.30 | 0.49 |
| 84 | 0.3 | 0.20 | 0.20 | 0.32 | 0.57 | 0.14 | 0.17 | 0.31 | 0.48 | 0.13 | 0.20 | 0.32 | 0.56 | 0.14 | 0.18 | 0.29 | 0.47 | 0.14 | 0.20 | 0.32 | 0.57 | 0.14 | 0.17 | 0.31 | 0.48 | 0.13 | 0.20 | 0.33 | 0.56 | 0.14 | 0.18 | 0.29 | 0.47 |
| 85 | 0.3 | 0.57 | 0.57 | 0.83 | 0.99 | 0.34 | 0.44 | 0.62 | 0.79 | 0.36 | 0.55 | 0.82 | 0.99 | 0.35 | 0.46 | 0.61 | 0.79 | 0.37 | 0.57 | 0.83 | 0.99 | 0.34 | 0.44 | 0.62 | 0.79 | 0.35 | 0.55 | 0.82 | 0.99 | 0.35 | 0.46 | 0.61 | 0.79 |
| 86 | 0.3 | 0.53 | 0.53 | 0.86 | 0.99 | 0.33 | 0.44 | 0.64 | 0.79 | 0.37 | 0.53 | 0.85 | 0.99 | 0.33 | 0.43 | 0.64 | 0.79 | 0.37 | 0.53 | 0.86 | 0.99 | 0.33 | 0.44 | 0.64 | 0.79 | 0.37 | 0.52 | 0.85 | 0.99 | 0.32 | 0.43 | 0.64 | 0.79 |
| 87 | 0.3 | 0.52 | 0.52 | 0.82 | 0.98 | 0.33 | 0.48 | 0.72 | 0.89 | 0.33 | 0.53 | 0.82 | 0.99 | 0.34 | 0.47 | 0.72 | 0.89 | 0.32 | 0.52 | 0.82 | 0.99 | 0.33 | 0.47 | 0.72 | 0.89 | 0.32 | 0.53 | 0.82 | 0.99 | 0.33 | 0.47 | 0.72 | 0.89 |
| 88 | 0.3 | 0.56 | 0.56 | 0.83 | 0.99 | 0.33 | 0.45 | 0.62 | 0.76 | 0.37 | 0.55 | 0.83 | 0.99 | 0.33 | 0.44 | 0.61 | 0.77 | 0.38 | 0.56 | 0.84 | 0.99 | 0.33 | 0.45 | 0.62 | 0.76 | 0.37 | 0.55 | 0.83 | 0.99 | 0.33 | 0.45 | 0.61 | 0.77 |
| 89 | 0.3 | 0.54 | 0.54 | 0.83 | 0.99 | 0.32 | 0.49 | 0.71 | 0.87 | 0.34 | 0.54 | 0.83 | 0.99 | 0.31 | 0.48 | 0.70 | 0.88 | 0.34 | 0.53 | 0.83 | 0.99 | 0.32 | 0.49 | 0.71 | 0.87 | 0.34 | 0.53 | 0.83 | 0.99 | 0.31 | 0.49 | 0.71 | 0.88 |
| 90 | 0.3 | 0.57 | 0.57 | 0.83 | 0.99 | 0.31 | 0.50 | 0.77 | 0.92 | 0.36 | 0.55 | 0.83 | 0.99 | 0.31 | 0.51 | 0.78 | 0.93 | 0.37 | 0.57 | 0.84 | 0.99 | 0.30 | 0.50 | 0.77 | 0.93 | 0.36 | 0.56 | 0.83 | 0.99 | 0.31 | 0.51 | 0.78 | 0.93 |
| 91 | 0.3 | 0.55 | 0.55 | 0.84 | 0.99 | 0.34 | 0.52 | 0.70 | 0.88 | 0.35 | 0.55 | 0.84 | 0.99 | 0.31 | 0.50 | 0.70 | 0.87 | 0.35 | 0.55 | 0.84 | 0.99 | 0.33 | 0.52 | 0.70 | 0.88 | 0.35 | 0.55 | 0.84 | 0.99 | 0.31 | 0.50 | 0.70 | 0.87 |
| 92 | 0.7 | 1.00 | 1.00 | 1.00 | 1.00 | 0.72 | 0.82 | 0.90 | 0.96 | 0.95 | 1.00 | 1.00 | 1.00 | 0.73 | 0.81 | 0.90 | 0.96 | 0.95 | 1.00 | 1.00 | 1.00 | 0.72 | 0.82 | 0.90 | 0.96 | 0.95 | 1.00 | 1.00 | 1.00 | 0.73 | 0.81 | 0.90 | 0.96 |
| 93 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.07 | 0.07 | 0.10 | | 0.06 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.09 | | 0.06 | 0.06 | 0.08 | | 0.07 | 0.07 | 0.10 | | 0.07 | 0.07 | 0.08 | | 0.07 | 0.07 | 0.09 | |
| 94 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.05 | 0.07 | 0.07 | | 0.06 | 0.07 | 0.08 | | 0.06 | 0.07 | 0.07 | | 0.06 | 0.07 | 0.08 | | 0.05 | 0.06 | 0.07 | | 0.06 | 0.07 | 0.08 | | 0.06 | 0.07 | 0.08 | |
| 95 | 0.1 | 0.06 | 0.06 | 0.08 | | 0.08 | 0.06 | 0.07 | | 0.07 | 0.07 | 0.08 | | 0.08 | 0.06 | 0.08 | | 0.08 | 0.06 | 0.09 | | 0.08 | 0.06 | 0.07 | | 0.08 | 0.07 | 0.08 | | 0.08 | 0.06 | 0.08 | |
| 96 | 0.1 | 0.08 | 0.08 | 0.08 | | 0.07 | 0.08 | 0.08 | | 0.06 | 0.08 | 0.08 | | 0.07 | 0.07 | 0.08 | | 0.06 | 0.09 | 0.08 | | 0.07 | 0.07 | 0.08 | | 0.06 | 0.08 | 0.08 | | 0.07 | 0.07 | 0.08 | |
| 97 | 0.1 | 0.06 | 0.06 | 0.09 | | 0.06 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.09 | | 0.06 | 0.08 | 0.08 | | 0.07 | 0.06 | 0.09 | | 0.06 | 0.08 | 0.08 | | 0.07 | 0.06 | 0.09 | | 0.05 | 0.08 | 0.08 | |
| 98 | 0.1 | 0.06 | 0.06 | 0.10 | | 0.07 | 0.06 | 0.08 | | 0.08 | 0.06 | 0.10 | | 0.07 | 0.06 | 0.09 | | 0.09 | 0.06 | 0.10 | | 0.08 | 0.07 | 0.08 | | 0.08 | 0.06 | 0.10 | | 0.07 | 0.06 | 0.09 | |
| 99 | 0.1 | 0.06 | 0.06 | 0.08 | | 0.06 | 0.07 | 0.08 | | 0.08 | 0.06 | 0.08 | | 0.07 | 0.06 | 0.08 | | 0.08 | 0.06 | 0.08 | | 0.06 | 0.07 | 0.08 | | 0.08 | 0.06 | 0.08 | | 0.07 | 0.07 | 0.08 | |
| 100 | 0.1 | 0.06 | 0.06 | 0.08 | | 0.08 | 0.08 | 0.07 | | 0.07 | 0.06 | 0.08 | | 0.08 | 0.08 | 0.08 | | 0.06 | 0.06 | 0.08 | | 0.08 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.08 | | 0.08 | 0.07 | 0.08 | |
| 101 | 0.1 | 0.11 | 0.11 | 0.18 | | 0.12 | 0.13 | 0.16 | | 0.09 | 0.11 | 0.18 | | 0.12 | 0.13 | 0.16 | | 0.09 | 0.11 | 0.18 | | 0.12 | 0.13 | 0.16 | | 0.10 | 0.11 | 0.18 | | 0.13 | 0.13 | 0.16 | |
| 102 | 0.1 | 0.11 | 0.11 | 0.18 | | 0.09 | 0.13 | 0.16 | | 0.09 | 0.12 | 0.18 | | 0.09 | 0.12 | 0.17 | | 0.09 | 0.11 | 0.18 | | 0.09 | 0.13 | 0.17 | | 0.09 | 0.12 | 0.18 | | 0.09 | 0.12 | 0.17 | |
| 103 | 0.1 | 0.12 | 0.12 | 0.20 | | 0.10 | 0.11 | 0.17 | | 0.11 | 0.12 | 0.21 | | 0.09 | 0.12 | 0.16 | | 0.09 | 0.12 | 0.20 | | 0.10 | 0.11 | 0.17 | | 0.10 | 0.12 | 0.21 | | 0.09 | 0.12 | 0.16 | |
| 104 | 0.1 | 0.12 | 0.12 | 0.17 | | 0.07 | 0.11 | 0.17 | | 0.10 | 0.11 | 0.17 | | 0.07 | 0.11 | 0.17 | | 0.10 | 0.12 | 0.17 | | 0.07 | 0.11 | 0.17 | | 0.10 | 0.11 | 0.17 | | 0.07 | 0.11 | 0.17 | |
| 105 | 0.1 | 0.10 | 0.10 | 0.17 | | 0.09 | 0.11 | 0.16 | | 0.07 | 0.11 | 0.17 | | 0.09 | 0.11 | 0.16 | | 0.06 | 0.10 | 0.17 | | 0.09 | 0.11 | 0.16 | | 0.07 | 0.11 | 0.17 | | 0.09 | 0.11 | 0.16 | |
| 106 | 0.1 | 0.12 | 0.12 | 0.18 | | 0.10 | 0.13 | 0.17 | | 0.09 | 0.11 | 0.18 | | 0.10 | 0.13 | 0.17 | | 0.09 | 0.12 | 0.18 | | 0.10 | 0.13 | 0.17 | | 0.09 | 0.11 | 0.18 | | 0.10 | 0.13 | 0.16 | |
| 107 | 0.1 | 0.13 | 0.13 | 0.18 | | 0.10 | 0.10 | 0.18 | | 0.09 | 0.12 | 0.17 | | 0.10 | 0.11 | 0.17 | | 0.08 | 0.13 | 0.18 | | 0.10 | 0.10 | 0.18 | | 0.09 | 0.12 | 0.17 | | 0.10 | 0.11 | 0.17 | |
| 108 | 0.1 | 0.11 | 0.11 | 0.15 | | 0.08 | 0.12 | 0.16 | | 0.09 | 0.11 | 0.15 | | 0.07 | 0.13 | 0.16 | | 0.09 | 0.11 | 0.15 | | 0.08 | 0.12 | 0.16 | | 0.08 | 0.11 | 0.15 | | 0.07 | 0.13 | 0.16 | |
| 109 | 0.3 | 0.18 | 0.18 | 0.34 | 0.56 | 0.13 | 0.20 | 0.29 | 0.47 | 0.13 | 0.18 | 0.35 | 0.57 | 0.13 | 0.20 | 0.31 | 0.47 | 0.14 | 0.18 | 0.34 | 0.56 | 0.13 | 0.20 | 0.29 | 0.47 | 0.13 | 0.18 | 0.34 | 0.57 | 0.13 | 0.20 | 0.31 | 0.47 |
| 110 | 0.3 | 0.19 | 0.19 | 0.33 | 0.55 | 0.12 | 0.17 | 0.31 | 0.45 | 0.12 | 0.18 | 0.33 | 0.54 | 0.12 | 0.17 | 0.31 | 0.45 | 0.12 | 0.19 | 0.33 | 0.54 | 0.12 | 0.18 | 0.31 | 0.45 | 0.12 | 0.18 | 0.33 | 0.54 | 0.12 | 0.17 | 0.31 | 0.45 |
| 111 | 0.3 | 0.55 | 0.55 | 0.84 | 0.99 | 0.32 | 0.45 | 0.61 | 0.78 | 0.36 | 0.56 | 0.84 | 0.99 | 0.31 | 0.45 | 0.61 | 0.78 | 0.38 | 0.55 | 0.84 | 0.99 | 0.31 | 0.45 | 0.61 | 0.78 | 0.35 | 0.57 | 0.84 | 0.99 | 0.31 | 0.45 | 0.61 | 0.78 |
| 112 | 0.3 | 0.54 | 0.54 | 0.84 | 0.99 | 0.35 | 0.45 | 0.65 | 0.80 | 0.37 | 0.54 | 0.83 | 0.99 | 0.34 | 0.44 | 0.64 | 0.80 | 0.39 | 0.54 | 0.84 | 0.99 | 0.35 | 0.44 | 0.65 | 0.80 | 0.37 | 0.54 | 0.83 | 0.99 | 0.35 | 0.44 | 0.64 | 0.80 |
| 113 | 0.3 | 0.56 | 0.56 | 0.85 | 0.99 | 0.36 | 0.48 | 0.73 | 0.88 | 0.38 | 0.55 | 0.85 | 0.99 | 0.36 | 0.47 | 0.74 | 0.88 | 0.37 | 0.56 | 0.85 | 0.99 | 0.36 | 0.47 | 0.73 | 0.88 | 0.38 | 0.54 | 0.85 | 0.99 | 0.36 | 0.47 | 0.74 | 0.88 |
| 114 | 0.3 | 0.51 | 0.51 | 0.84 | 0.99 | 0.32 | 0.44 | 0.63 | 0.79 | 0.33 | 0.52 | 0.83 | 0.99 | 0.31 | 0.44 | 0.62 | 0.78 | 0.34 | 0.51 | 0.83 | 0.99 | 0.32 | 0.44 | 0.63 | 0.79 | 0.33 | 0.52 | 0.83 | 0.99 | 0.31 | 0.44 | 0.62 | 0.78 |
| 115 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.07 | 0.07 | 0.09 | | 0.08 | 0.07 | 0.08 | | 0.08 | 0.06 | 0.09 | | 0.09 | 0.07 | 0.08 | | 0.07 | 0.07 | 0.09 | | 0.08 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.09 | |
| 116 | 0.1 | 0.07 | 0.07 | 0.09 | | 0.06 | 0.07 | 0.08 | | 0.06 | 0.07 | 0.09 | | 0.07 | 0.07 | 0.08 | | 0.06 | 0.07 | 0.09 | | 0.07 | 0.07 | 0.08 | | 0.06 | 0.07 | 0.09 | | 0.07 | 0.07 | 0.08 | |
| 117 | 0.1 | 0.07 | 0.07 | 0.09 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.07 | 0.08 | | 0.07 | 0.08 | 0.07 | | 0.07 | 0.07 | 0.09 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.07 | 0.08 | | 0.07 | 0.08 | 0.07 | |
| 118 | 0.1 | 0.06 | 0.06 | 0.09 | | 0.07 | 0.06 | 0.09 | | 0.06 | 0.07 | 0.10 | | 0.07 | 0.06 | 0.10 | | 0.05 | 0.06 | 0.09 | | 0.07 | 0.07 | 0.09 | | 0.06 | 0.06 | 0.10 | | 0.08 | 0.06 | 0.09 | |
| 119 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.07 | 0.07 | 0.08 | | 0.06 | 0.06 | 0.07 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.07 | 0.07 | | 0.08 | 0.07 | 0.08 | | 0.06 | 0.06 | 0.07 | | 0.07 | 0.08 | 0.08 | |
| 120 | 0.1 | 0.07 | 0.07 | 0.07 | | 0.07 | 0.06 | 0.08 | | 0.07 | 0.07 | 0.07 | | 0.08 | 0.06 | 0.08 | | 0.07 | 0.07 | 0.07 | | 0.07 | 0.06 | 0.08 | | 0.07 | 0.07 | 0.07 | | 0.07 | 0.06 | 0.08 | |
| 121 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.07 | 0.07 | 0.06 | | 0.07 | 0.07 | 0.08 | | 0.08 | 0.08 | 0.07 | | 0.07 | 0.07 | 0.07 | | 0.08 | 0.08 | 0.07 | | 0.07 | 0.07 | 0.08 | | 0.08 | 0.08 | 0.07 | |
| 122 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.07 | 0.08 | 0.07 | | 0.06 | 0.06 | 0.08 | | 0.07 | 0.08 | 0.07 | | 0.06 | 0.07 | 0.08 | | 0.07 | 0.08 | 0.07 | | 0.06 | 0.06 | 0.08 | | 0.07 | 0.08 | 0.08 | |
| 123 | 0.1 | 0.12 | 0.12 | 0.16 | | 0.10 | 0.10 | 0.15 | | 0.08 | 0.13 | 0.17 | | 0.09 | 0.10 | 0.15 | | 0.09 | 0.12 | 0.16 | | 0.09 | 0.10 | 0.15 | | 0.08 | 0.12 | 0.17 | | 0.09 | 0.10 | 0.15 | |
| 124 | 0.1 | 0.10 | 0.10 | 0.18 | | 0.10 | 0.09 | 0.19 | | 0.08 | 0.10 | 0.17 | | 0.10 | 0.09 | 0.19 | | 0.07 | 0.10 | 0.18 | | 0.09 | 0.09 | 0.19 | | 0.08 | 0.10 | 0.17 | | 0.10 | 0.09 | 0.18 | |
| 125 | 0.1 | 0.12 | 0.12 | 0.18 | | 0.09 | 0.10 | 0.17 | | 0.10 | 0.12 | 0.18 | | 0.10 | 0.10 | 0.16 | | 0.10 | 0.12 | 0.18 | | 0.09 | 0.10 | 0.17 | | 0.10 | 0.12 | 0.18 | | 0.09 | 0.10 | 0.16 | |
| 126 | 0.1 | 0.11 | 0.11 | 0.19 | | 0.09 | 0.10 | 0.19 | | 0.10 | 0.11 | 0.18 | | 0.10 | 0.10 | 0.18 | | 0.11 | 0.11 | 0.18 | | 0.10 | 0.10 | 0.19 | | 0.10 | 0.11 | 0.17 | | 0.10 | 0.10 | 0.19 | |
| 127 | 0.1 | 0.10 | 0.10 | 0.19 | | 0.09 | 0.10 | 0.18 | | 0.10 | 0.11 | 0.18 | | 0.08 | 0.09 | 0.18 | | 0.09 | 0.11 | 0.18 | | 0.09 | 0.10 | 0.18 | | 0.10 | 0.10 | 0.18 | | 0.08 | 0.10 | 0.18 | |
| 128 | 0.1 | 0.12 | 0.12 | 0.14 | | 0.11 | 0.12 | 0.18 | | 0.09 | 0.13 | 0.13 | | 0.11 | 0.11 | 0.18 | | 0.09 | 0.12 | 0.14 | | 0.11 | 0.12 | 0.18 | | 0.09 | 0.13 | 0.14 | | 0.11 | 0.12 | 0.18 | |
| 129 | 0.1 | 0.10 | 0.10 | 0.17 | | 0.11 | 0.09 | 0.16 | | 0.09 | 0.11 | 0.17 | | 0.10 | 0.09 | 0.17 | | 0.09 | 0.11 | 0.17 | | 0.10 | 0.09 | 0.16 | | 0.09 | 0.11 | 0.17 | | 0.10 | 0.09 | 0.17 | |
| 130 | 0.1 | 0.09 | 0.09 | 0.17 | | 0.10 | 0.11 | 0.16 | | 0.10 | 0.10 | 0.17 | | 0.11 | 0.11 | 0.15 | | 0.10 | 0.09 | 0.17 | | 0.10 | 0.11 | 0.16 | | 0.09 | 0.09 | 0.17 | | 0.11 | 0.11 | 0.15 | |
| 131 | 0.3 | 0.18 | 0.18 | 0.33 | 0.54 | 0.14 | 0.15 | 0.30 | 0.48 | 0.15 | 0.18 | 0.32 | 0.54 | 0.14 | 0.15 | 0.29 | 0.49 | 0.16 | 0.17 | 0.32 | 0.54 | 0.14 | 0.16 | 0.30 | 0.48 | 0.15 | 0.18 | 0.32 | 0.54 | 0.13 | 0.15 | 0.30 | 0.49 |
| 132 | 0.3 | 0.19 | 0.19 | 0.34 | 0.59 | 0.15 | 0.16 | 0.30 | 0.46 | 0.13 | 0.19 | 0.34 | 0.58 | 0.15 | 0.16 | 0.30 | 0.47 | 0.14 | 0.19 | 0.34 | 0.58 | 0.14 | 0.16 | 0.30 | 0.46 | 0.14 | 0.19 | 0.34 | 0.57 | 0.15 | 0.16 | 0.30 | 0.47 |
| 133 | 0.3 | 0.17 | 0.17 | 0.34 | 0.55 | 0.14 | 0.16 | 0.28 | 0.47 | 0.13 | 0.18 | 0.32 | 0.56 | 0.15 | 0.16 | 0.28 | 0.47 | 0.13 | 0.17 | 0.34 | 0.56 | 0.14 | 0.16 | 0.28 | 0.46 | 0.12 | 0.18 | 0.32 | 0.55 | 0.15 | 0.17 | 0.28 | 0.47 |
| 134 | 0.3 | 0.55 | 0.55 | 0.82 | 0.98 | 0.31 | 0.34 | 0.64 | 0.78 | 0.37 | 0.55 | 0.81 | 0.98 | 0.31 | 0.34 | 0.65 | 0.78 | 0.36 | 0.56 | 0.82 | 0.98 | 0.30 | 0.34 | 0.64 | 0.78 | 0.37 | 0.56 | 0.82 | 0.98 | 0.31 | 0.34 | 0.65 | 0.78 |
| 135 | 0.3 | 0.55 | 0.55 | 0.85 | 0.98 | 0.31 | 0.37 | 0.66 | 0.78 | 0.35 | 0.55 | 0.85 | 0.99 | 0.31 | 0.37 | 0.66 | 0.78 | 0.36 | 0.55 | 0.85 | 0.98 | 0.31 | 0.37 | 0.66 | 0.78 | 0.35 | 0.54 | 0.85 | 0.99 | 0.32 | 0.37 | 0.67 | 0.78 |
| 136 | 0.3 | 0.56 | 0.56 | 0.85 | 0.99 | 0.35 | 0.43 | 0.71 | 0.88 | 0.38 | 0.54 | 0.85 | 0.98 | 0.35 | 0.42 | 0.71 | 0.88 | 0.38 | 0.55 | 0.85 | 0.99 | 0.37 | 0.43 | 0.71 | 0.88 | 0.38 | 0.54 | 0.85 | 0.98 | 0.36 | 0.42 | 0.70 | 0.88 |
| 137 | 0.3 | 0.56 | 0.56 | 0.84 | 0.99 | 0.33 | 0.34 | 0.65 | 0.76 | 0.38 | 0.57 | 0.84 | 0.99 | 0.32 | 0.34 | 0.65 | 0.76 | 0.37 | 0.57 | 0.84 | 0.99 | 0.32 | 0.34 | 0.65 | 0.76 | 0.37 | 0.56 | 0.84 | 0.99 | 0.32 | 0.34 | 0.65 | 0.76 |
| 138 | 0.3 | 0.55 | 0.55 | 0.83 | 0.99 | 0.35 | 0.44 | 0.72 | 0.86 | 0.37 | 0.56 | 0.83 | 0.99 | 0.36 | 0.44 | 0.72 | 0.86 | 0.36 | 0.55 | 0.83 | 0.99 | 0.36 | 0.44 | 0.72 | 0.86 | 0.37 | 0.56 | 0.83 | 0.99 | 0.36 | 0.44 | 0.72 | 0.86 |
| 139 | 0.1 | 0.06 | 0.06 | 0.10 | | 0.06 | 0.06 | 0.05 | | 0.08 | 0.07 | 0.09 | | 0.07 | 0.06 | 0.07 | | 0.08 | 0.06 | 0.10 | | 0.06 | 0.06 | 0.06 | | 0.08 | 0.07 | 0.09 | | 0.07 | 0.06 | 0.07 | |
| 140 | 0.1 | 0.08 | 0.08 | 0.07 | | 0.07 | 0.06 | 0.08 | | 0.06 | 0.08 | 0.06 | | 0.07 | 0.07 | 0.08 | | 0.07 | 0.08 | 0.07 | | 0.07 | 0.06 | 0.08 | | 0.07 | 0.08 | 0.06 | | 0.07 | 0.06 | 0.08 | |
| 141 | 0.1 | 0.06 | 0.06 | 0.08 | | 0.07 | 0.05 | 0.08 | | 0.06 | 0.06 | 0.08 | | 0.07 | 0.05 | 0.08 | | 0.07 | 0.06 | 0.08 | | 0.07 | 0.05 | 0.08 | | 0.06 | 0.06 | 0.08 | | 0.06 | 0.05 | 0.08 | |
| 142 | 0.1 | 0.08 | 0.08 | 0.09 | | 0.06 | 0.06 | 0.07 | | 0.07 | 0.08 | 0.10 | | 0.05 | 0.05 | 0.07 | | 0.06 | 0.08 | 0.09 | | 0.06 | 0.06 | 0.07 | | 0.06 | 0.08 | 0.09 | | 0.04 | 0.05 | 0.07 | |
| 143 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.06 | 0.05 | 0.06 | | 0.07 | 0.07 | 0.06 | | 0.06 | 0.06 | 0.06 | | 0.06 | 0.07 | 0.07 | | 0.06 | 0.05 | 0.06 | | 0.06 | 0.07 | 0.07 | | 0.06 | 0.06 | 0.06 | |
| 144 | 0.1 | 0.07 | 0.07 | 0.09 | | 0.06 | 0.06 | 0.07 | | 0.06 | 0.07 | 0.09 | | 0.06 | 0.07 | 0.08 | | 0.06 | 0.07 | 0.09 | | 0.05 | 0.06 | 0.07 | | 0.06 | 0.07 | 0.09 | | 0.06 | 0.06 | 0.08 | |
| 145 | 0.1 | 0.06 | 0.06 | 0.10 | | 0.06 | 0.06 | 0.05 | | 0.07 | 0.07 | 0.10 | | 0.05 | 0.06 | 0.06 | | 0.07 | 0.07 | 0.09 | | 0.06 | 0.06 | 0.05 | | 0.07 | 0.06 | 0.10 | | 0.05 | 0.06 | 0.06 | |
| 146 | 0.1 | 0.07 | 0.07 | 0.09 | | 0.06 | 0.07 | 0.07 | | 0.06 | 0.06 | 0.09 | | 0.07 | 0.07 | 0.07 | | 0.06 | 0.07 | 0.09 | | 0.06 | 0.07 | 0.07 | | 0.05 | 0.06 | 0.09 | | 0.07 | 0.06 | 0.08 | |
| 147 | 0.1 | 0.11 | 0.11 | 0.17 | | 0.08 | 0.09 | 0.11 | | 0.10 | 0.11 | 0.15 | | 0.07 | 0.08 | 0.11 | | 0.10 | 0.11 | 0.17 | | 0.08 | 0.09 | 0.11 | | 0.10 | 0.11 | 0.16 | | 0.07 | 0.09 | 0.11 | |
| 148 | 0.1 | 0.11 | 0.11 | 0.17 | | 0.09 | 0.06 | 0.10 | | 0.09 | 0.11 | 0.16 | | 0.07 | 0.06 | 0.10 | | 0.10 | 0.11 | 0.17 | | 0.08 | 0.06 | 0.10 | | 0.09 | 0.11 | 0.16 | | 0.07 | 0.06 | 0.10 | |
| 149 | 0.1 | 0.13 | 0.13 | 0.18 | | 0.06 | 0.06 | 0.11 | | 0.08 | 0.13 | 0.19 | | 0.07 | 0.07 | 0.11 | | 0.09 | 0.13 | 0.18 | | 0.06 | 0.06 | 0.11 | | 0.08 | 0.13 | 0.19 | | 0.07 | 0.06 | 0.12 | |
| 150 | 0.1 | 0.11 | 0.11 | 0.17 | | 0.08 | 0.07 | 0.11 | | 0.10 | 0.11 | 0.18 | | 0.07 | 0.07 | 0.12 | | 0.08 | 0.11 | 0.17 | | 0.08 | 0.07 | 0.12 | | 0.10 | 0.11 | 0.18 | | 0.08 | 0.07 | 0.12 | |

**Table 27. Average power values for Level-3 parameters based on the re-sampled sample sizes for conditions 151 - 236. Minimum power between 0.80 and 0.90 highlighted in light green and greater than 0.90 highlighted in dark green.**

| | Level-3 Parameter Power | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Effect Size | $\gamma_{000}$ | | | | $\gamma_{001}$ | | | | $\gamma_{010}$ | | | | $\gamma_{011}$ | | | | $\gamma_{100}$ | | | | $\gamma_{101}$ | | | | $\gamma_{110}$ | | | | $\gamma_{111}$ | | | | | | |
| 151 | 0.1 | 0.11 | 0.11 | 0.17 | | 0.08 | 0.08 | 0.11 | | 0.09 | 0.11 | 0.15 | | 0.08 | 0.07 | 0.11 | | 0.09 | 0.11 | 0.17 | | 0.08 | 0.08 | 0.11 | | 0.09 | 0.11 | 0.16 | | 0.07 | 0.07 | 0.11 | | | | |
| 152 | 0.1 | 0.11 | 0.11 | 0.16 | | 0.08 | 0.09 | 0.10 | | 0.09 | 0.11 | 0.17 | | 0.08 | 0.08 | 0.10 | | 0.10 | 0.11 | 0.16 | | 0.08 | 0.09 | 0.10 | | 0.09 | 0.11 | 0.17 | | 0.08 | 0.07 | 0.10 | | | | |
| 153 | 0.1 | 0.10 | 0.10 | 0.18 | | 0.06 | 0.09 | 0.11 | | 0.09 | 0.11 | 0.17 | | 0.07 | 0.08 | 0.11 | | 0.10 | 0.10 | 0.18 | | 0.06 | 0.09 | 0.11 | | 0.09 | 0.11 | 0.17 | | 0.07 | 0.08 | 0.11 | | | | |
| 154 | 0.1 | 0.11 | 0.11 | 0.17 | | 0.10 | 0.09 | 0.12 | | 0.09 | 0.11 | 0.17 | | 0.09 | 0.09 | 0.12 | | 0.10 | 0.11 | 0.18 | | 0.10 | 0.09 | 0.12 | | 0.09 | 0.11 | 0.17 | | 0.09 | 0.09 | 0.12 | | | | |
| 155 | 0.3 | 0.19 | 0.19 | 0.30 | 0.58 | 0.12 | 0.11 | 0.21 | 0.30 | 0.15 | 0.18 | 0.30 | 0.57 | 0.11 | 0.10 | 0.21 | 0.29 | 0.15 | 0.19 | 0.30 | 0.58 | 0.13 | 0.10 | 0.21 | 0.30 | 0.15 | 0.18 | 0.30 | 0.57 | 0.11 | 0.10 | 0.21 | 0.29 | | | |
| 156 | 0.3 | 0.19 | 0.19 | 0.32 | 0.58 | 0.08 | 0.10 | 0.17 | 0.31 | 0.12 | 0.18 | 0.31 | 0.56 | 0.07 | 0.11 | 0.16 | 0.31 | 0.12 | 0.19 | 0.32 | 0.57 | 0.08 | 0.10 | 0.17 | 0.31 | 0.12 | 0.17 | 0.31 | 0.56 | 0.07 | 0.11 | 0.16 | 0.31 | | | |
| 157 | 0.3 | 0.17 | 0.17 | 0.29 | 0.54 | 0.11 | 0.12 | 0.19 | 0.32 | 0.12 | 0.17 | 0.29 | 0.53 | 0.10 | 0.11 | 0.19 | 0.31 | 0.13 | 0.17 | 0.30 | 0.54 | 0.11 | 0.12 | 0.19 | 0.32 | 0.12 | 0.17 | 0.29 | 0.53 | 0.10 | 0.11 | 0.19 | 0.31 | | | |
| 158 | 0.3 | 0.19 | 0.19 | 0.32 | 0.57 | 0.10 | 0.10 | 0.19 | 0.29 | 0.13 | 0.18 | 0.31 | 0.57 | 0.09 | 0.10 | 0.19 | 0.28 | 0.14 | 0.19 | 0.32 | 0.56 | 0.10 | 0.10 | 0.19 | 0.29 | 0.13 | 0.18 | 0.31 | 0.57 | 0.09 | 0.10 | 0.19 | 0.28 | | | |
| 159 | 0.3 | 0.22 | 0.22 | 0.32 | 0.56 | 0.09 | 0.12 | 0.20 | 0.28 | 0.13 | 0.21 | 0.33 | 0.55 | 0.10 | 0.12 | 0.18 | 0.29 | 0.14 | 0.22 | 0.32 | 0.56 | 0.09 | 0.12 | 0.19 | 0.28 | 0.13 | 0.22 | 0.32 | 0.55 | 0.10 | 0.12 | 0.18 | 0.28 | | | |
| 160 | 0.3 | 0.18 | 0.18 | 0.32 | 0.55 | 0.08 | 0.11 | 0.17 | 0.31 | 0.11 | 0.18 | 0.32 | 0.54 | 0.08 | 0.10 | 0.16 | 0.32 | 0.12 | 0.18 | 0.33 | 0.55 | 0.08 | 0.11 | 0.17 | 0.32 | 0.11 | 0.17 | 0.32 | 0.54 | 0.08 | 0.10 | 0.16 | 0.32 | | | |
| 161 | 0.3 | 0.20 | 0.20 | 0.32 | 0.56 | 0.11 | 0.12 | 0.19 | 0.33 | 0.15 | 0.18 | 0.32 | 0.57 | 0.10 | 0.12 | 0.19 | 0.33 | 0.14 | 0.20 | 0.32 | 0.56 | 0.10 | 0.12 | 0.19 | 0.33 | 0.15 | 0.18 | 0.32 | 0.57 | 0.09 | 0.12 | 0.19 | 0.33 | | | |
| 162 | 0.3 | 0.19 | 0.19 | 0.28 | 0.58 | 0.10 | 0.11 | 0.18 | 0.28 | 0.14 | 0.18 | 0.29 | 0.54 | 0.10 | 0.11 | 0.17 | 0.28 | 0.14 | 0.19 | 0.28 | 0.58 | 0.10 | 0.11 | 0.18 | 0.28 | 0.13 | 0.18 | 0.29 | 0.55 | 0.10 | 0.12 | 0.17 | 0.28 | | | |
| 163 | 0.3 | 0.55 | 0.55 | 0.84 | 0.98 | 0.20 | 0.24 | 0.45 | 0.63 | 0.34 | 0.52 | 0.84 | 0.98 | 0.21 | 0.25 | 0.46 | 0.62 | 0.36 | 0.55 | 0.84 | 0.98 | 0.20 | 0.24 | 0.45 | 0.63 | 0.35 | 0.51 | 0.83 | 0.98 | 0.21 | 0.24 | 0.46 | 0.63 | | | |
| 164 | 0.3 | 0.56 | 0.56 | 0.84 | 0.99 | 0.22 | 0.25 | 0.46 | 0.65 | 0.32 | 0.54 | 0.81 | 0.99 | 0.19 | 0.24 | 0.45 | 0.65 | 0.34 | 0.56 | 0.84 | 0.99 | 0.22 | 0.25 | 0.46 | 0.65 | 0.33 | 0.53 | 0.82 | 0.99 | 0.20 | 0.24 | 0.45 | 0.65 | | | |
| 165 | 0.3 | 0.56 | 0.56 | 0.85 | 0.98 | 0.19 | 0.25 | 0.47 | 0.72 | 0.33 | 0.56 | 0.84 | 0.98 | 0.19 | 0.25 | 0.46 | 0.71 | 0.35 | 0.57 | 0.85 | 0.98 | 0.20 | 0.24 | 0.47 | 0.72 | 0.33 | 0.56 | 0.84 | 0.98 | 0.19 | 0.25 | 0.46 | 0.71 | | | |
| 166 | 0.3 | 0.53 | 0.53 | 0.84 | 0.98 | 0.21 | 0.21 | 0.47 | 0.63 | 0.32 | 0.51 | 0.83 | 0.98 | 0.21 | 0.21 | 0.46 | 0.63 | 0.35 | 0.53 | 0.83 | 0.98 | 0.22 | 0.21 | 0.47 | 0.63 | 0.32 | 0.51 | 0.83 | 0.98 | 0.20 | 0.20 | 0.46 | 0.63 | | | |
| 167 | 0.3 | 0.57 | 0.57 | 0.82 | 0.98 | 0.21 | 0.25 | 0.49 | 0.73 | 0.32 | 0.54 | 0.82 | 0.99 | 0.20 | 0.24 | 0.47 | 0.73 | 0.34 | 0.57 | 0.82 | 0.98 | 0.21 | 0.25 | 0.49 | 0.73 | 0.33 | 0.54 | 0.82 | 0.98 | 0.20 | 0.24 | 0.47 | 0.73 | | | |
| 168 | 0.3 | 0.55 | 0.55 | 0.83 | 0.99 | 0.21 | 0.28 | 0.49 | 0.79 | 0.34 | 0.54 | 0.82 | 0.98 | 0.20 | 0.28 | 0.49 | 0.78 | 0.34 | 0.55 | 0.83 | 0.99 | 0.21 | 0.28 | 0.49 | 0.79 | 0.34 | 0.54 | 0.82 | 0.98 | 0.21 | 0.28 | 0.49 | 0.78 | | | |
| 169 | 0.3 | 0.53 | 0.53 | 0.85 | 0.99 | 0.19 | 0.25 | 0.49 | 0.74 | 0.36 | 0.52 | 0.84 | 0.99 | 0.19 | 0.23 | 0.49 | 0.72 | 0.37 | 0.54 | 0.85 | 0.99 | 0.19 | 0.25 | 0.49 | 0.74 | 0.35 | 0.52 | 0.84 | 0.99 | 0.19 | 0.23 | 0.49 | 0.73 | | | |
| 170 | 0.3 | 0.55 | 0.55 | 0.85 | 0.99 | 0.19 | 0.27 | 0.50 | 0.74 | 0.30 | 0.50 | 0.83 | 0.99 | 0.20 | 0.25 | 0.50 | 0.73 | 0.33 | 0.54 | 0.85 | 0.99 | 0.20 | 0.27 | 0.50 | 0.73 | 0.30 | 0.50 | 0.84 | 0.99 | 0.20 | 0.25 | 0.50 | 0.73 | | | |
| 171 | 0.7 | 0.69 | 0.69 | 0.93 | 1.00 | 0.23 | 0.27 | 0.55 | 0.71 | 0.44 | 0.66 | 0.92 | 1.00 | 0.22 | 0.28 | 0.53 | 0.71 | 0.47 | 0.69 | 0.93 | 1.00 | 0.23 | 0.27 | 0.55 | 0.71 | 0.44 | 0.66 | 0.93 | 1.00 | 0.21 | 0.27 | 0.53 | 0.71 | | | |
| 172 | 0.7 | 1.00 | 1.00 | 1.00 | 1.00 | 0.56 | 0.61 | 0.83 | 0.90 | 0.93 | 1.00 | 1.00 | 1.00 | 0.54 | 0.59 | 0.83 | 0.90 | 0.96 | 1.00 | 1.00 | 1.00 | 0.56 | 0.61 | 0.83 | 0.90 | 0.93 | 1.00 | 1.00 | 1.00 | 0.54 | 0.59 | 0.83 | 0.90 | | | |
| 173 | 0.7 | 1.00 | 1.00 | 1.00 | 1.00 | 0.55 | 0.59 | 0.83 | 0.90 | 0.94 | 1.00 | 1.00 | 1.00 | 0.51 | 0.56 | 0.82 | 0.90 | 0.95 | 1.00 | 1.00 | 1.00 | 0.55 | 0.59 | 0.83 | 0.90 | 0.94 | 1.00 | 1.00 | 1.00 | 0.51 | 0.56 | 0.83 | 0.90 | | | |
| 174 | 0.7 | 1.00 | 1.00 | 1.00 | 1.00 | 0.57 | 0.57 | 0.84 | 0.90 | 0.94 | 0.99 | 1.00 | 1.00 | 0.54 | 0.55 | 0.83 | 0.90 | 0.95 | 1.00 | 1.00 | 1.00 | 0.57 | 0.58 | 0.84 | 0.90 | 0.94 | 0.99 | 1.00 | 1.00 | 0.54 | 0.55 | 0.83 | 0.90 | | | |
| 175 | 0.1 | 0.08 | 0.08 | 0.08 | | 0.05 | 0.07 | 0.08 | | 0.06 | 0.08 | 0.09 | | 0.05 | 0.07 | 0.08 | | 0.06 | 0.08 | 0.08 | | 0.05 | 0.07 | 0.09 | | 0.06 | 0.08 | 0.09 | | 0.06 | 0.07 | 0.08 | | | | |
| 176 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.07 | | 0.08 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.08 | | 0.08 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.08 | | 0.07 | 0.07 | 0.08 | | 0.06 | 0.06 | 0.08 | | | | |
| 177 | 0.1 | 0.08 | 0.08 | 0.08 | | 0.06 | 0.06 | 0.07 | | 0.07 | 0.08 | 0.09 | | 0.06 | 0.06 | 0.07 | | 0.07 | 0.08 | 0.09 | | 0.06 | 0.06 | 0.07 | | 0.08 | 0.08 | 0.09 | | 0.06 | 0.06 | 0.07 | | | | |
| 178 | 0.1 | 0.08 | 0.08 | 0.09 | | 0.07 | 0.08 | 0.07 | | 0.07 | 0.07 | 0.10 | | 0.07 | 0.08 | 0.08 | | 0.05 | 0.08 | 0.09 | | 0.07 | 0.08 | 0.07 | | 0.06 | 0.07 | 0.10 | | 0.07 | 0.08 | 0.08 | | | | |
| 179 | 0.1 | 0.08 | 0.08 | 0.08 | | 0.06 | 0.08 | 0.06 | | 0.06 | 0.09 | 0.09 | | 0.05 | 0.07 | 0.06 | | 0.07 | 0.08 | 0.08 | | 0.06 | 0.08 | 0.06 | | 0.06 | 0.09 | 0.09 | | 0.05 | 0.07 | 0.06 | | | | |
| 180 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.06 | 0.07 | 0.06 | | 0.07 | 0.06 | 0.08 | | 0.06 | 0.08 | 0.06 | | 0.07 | 0.07 | 0.08 | | 0.06 | 0.07 | 0.06 | | 0.07 | 0.06 | 0.08 | | 0.06 | 0.07 | 0.06 | | | | |
| 181 | 0.1 | 0.07 | 0.07 | 0.07 | | 0.07 | 0.06 | 0.07 | | 0.06 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.07 | | 0.05 | 0.07 | 0.07 | | 0.08 | 0.06 | 0.07 | | 0.05 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.07 | | | | |
| 182 | 0.1 | 0.07 | 0.07 | 0.08 | | 0.07 | 0.07 | 0.07 | | 0.07 | 0.07 | 0.09 | | 0.06 | 0.06 | 0.07 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.07 | 0.07 | | 0.07 | 0.07 | 0.09 | | 0.06 | 0.06 | 0.07 | | | | |
| 183 | 0.1 | 0.13 | 0.13 | 0.16 | | 0.08 | 0.07 | 0.13 | | 0.10 | 0.12 | 0.17 | | 0.08 | 0.07 | 0.13 | | 0.09 | 0.12 | 0.16 | | 0.08 | 0.07 | 0.13 | | 0.09 | 0.12 | 0.17 | | 0.08 | 0.07 | 0.13 | | | | |
| 184 | 0.1 | 0.11 | 0.11 | 0.19 | | 0.08 | 0.07 | 0.10 | | 0.09 | 0.11 | 0.18 | | 0.08 | 0.07 | 0.10 | | 0.09 | 0.11 | 0.19 | | 0.07 | 0.08 | 0.10 | | 0.09 | 0.11 | 0.18 | | 0.09 | 0.07 | 0.10 | | | | |
| 185 | 0.1 | 0.12 | 0.12 | 0.18 | | 0.08 | 0.07 | 0.11 | | 0.09 | 0.11 | 0.18 | | 0.07 | 0.07 | 0.10 | | 0.09 | 0.12 | 0.18 | | 0.07 | 0.07 | 0.11 | | 0.09 | 0.11 | 0.18 | | 0.07 | 0.07 | 0.10 | | | | |
| 186 | 0.1 | 0.12 | 0.12 | 0.18 | | 0.08 | 0.07 | 0.10 | | 0.10 | 0.11 | 0.18 | | 0.07 | 0.06 | 0.09 | | 0.09 | 0.12 | 0.18 | | 0.07 | 0.07 | 0.10 | | 0.10 | 0.11 | 0.18 | | 0.07 | 0.07 | 0.10 | | | | |
| 187 | 0.1 | 0.12 | 0.12 | 0.17 | | 0.08 | 0.08 | 0.11 | | 0.10 | 0.14 | 0.17 | | 0.08 | 0.07 | 0.11 | | 0.11 | 0.12 | 0.17 | | 0.08 | 0.08 | 0.11 | | 0.10 | 0.14 | 0.17 | | 0.07 | 0.07 | 0.11 | | | | |
| 188 | 0.1 | 0.12 | 0.12 | 0.16 | | 0.07 | 0.08 | 0.14 | | 0.09 | 0.12 | 0.16 | | 0.08 | 0.09 | 0.13 | | 0.09 | 0.13 | 0.16 | | 0.07 | 0.08 | 0.14 | | 0.09 | 0.12 | 0.16 | | 0.09 | 0.09 | 0.13 | | | | |
| 189 | 0.1 | 0.11 | 0.11 | 0.18 | | 0.07 | 0.09 | 0.11 | | 0.09 | 0.11 | 0.17 | | 0.08 | 0.08 | 0.10 | | 0.10 | 0.11 | 0.18 | | 0.08 | 0.09 | 0.11 | | 0.09 | 0.11 | 0.17 | | 0.08 | 0.09 | 0.10 | | | | |
| 190 | 0.1 | 0.12 | 0.12 | 0.17 | | 0.07 | 0.10 | 0.12 | | 0.11 | 0.12 | 0.16 | | 0.07 | 0.10 | 0.11 | | 0.11 | 0.11 | 0.17 | | 0.06 | 0.10 | 0.11 | | 0.11 | 0.12 | 0.16 | | 0.07 | 0.10 | 0.11 | | | | |
| 191 | 0.3 | 0.19 | 0.19 | 0.32 | 0.58 | 0.09 | 0.10 | 0.18 | 0.30 | 0.13 | 0.19 | 0.33 | 0.57 | 0.09 | 0.10 | 0.19 | 0.30 | 0.15 | 0.19 | 0.32 | 0.58 | 0.09 | 0.10 | 0.18 | 0.30 | 0.14 | 0.18 | 0.33 | 0.57 | 0.09 | 0.10 | 0.19 | 0.30 | | | |
| 192 | 0.3 | 0.20 | 0.20 | 0.30 | 0.57 | 0.11 | 0.10 | 0.19 | 0.28 | 0.14 | 0.19 | 0.30 | 0.57 | 0.10 | 0.10 | 0.19 | 0.28 | 0.14 | 0.20 | 0.31 | 0.57 | 0.11 | 0.10 | 0.19 | 0.28 | 0.14 | 0.19 | 0.30 | 0.57 | 0.10 | 0.10 | 0.19 | 0.28 | | | |
| 193 | 0.3 | 0.19 | 0.19 | 0.33 | 0.57 | 0.09 | 0.10 | 0.20 | 0.29 | 0.14 | 0.17 | 0.33 | 0.57 | 0.09 | 0.09 | 0.19 | 0.29 | 0.14 | 0.19 | 0.33 | 0.57 | 0.09 | 0.10 | 0.20 | 0.28 | 0.14 | 0.17 | 0.33 | 0.58 | 0.09 | 0.09 | 0.19 | 0.29 | | | |
| 194 | 0.3 | 0.19 | 0.19 | 0.33 | 0.57 | 0.10 | 0.10 | 0.19 | 0.30 | 0.12 | 0.18 | 0.34 | 0.55 | 0.09 | 0.11 | 0.19 | 0.31 | 0.13 | 0.19 | 0.33 | 0.57 | 0.10 | 0.11 | 0.19 | 0.30 | 0.12 | 0.19 | 0.33 | 0.55 | 0.09 | 0.11 | 0.19 | 0.31 | | | |
| 195 | 0.3 | 0.19 | 0.19 | 0.33 | 0.58 | 0.09 | 0.10 | 0.18 | 0.30 | 0.13 | 0.19 | 0.33 | 0.59 | 0.10 | 0.11 | 0.18 | 0.30 | 0.14 | 0.19 | 0.33 | 0.58 | 0.09 | 0.09 | 0.18 | 0.30 | 0.13 | 0.19 | 0.32 | 0.58 | 0.10 | 0.11 | 0.18 | 0.29 | | | |
| 196 | 0.3 | 0.53 | 0.53 | 0.83 | 0.99 | 0.23 | 0.21 | 0.47 | 0.63 | 0.36 | 0.51 | 0.83 | 0.99 | 0.22 | 0.22 | 0.46 | 0.63 | 0.37 | 0.53 | 0.83 | 0.99 | 0.23 | 0.21 | 0.47 | 0.63 | 0.37 | 0.51 | 0.83 | 0.99 | 0.23 | 0.22 | 0.46 | 0.63 | | | |
| 197 | 0.3 | 0.54 | 0.54 | 0.83 | 0.99 | 0.24 | 0.23 | 0.44 | 0.61 | 0.31 | 0.53 | 0.82 | 0.99 | 0.23 | 0.23 | 0.44 | 0.61 | 0.33 | 0.54 | 0.83 | 0.99 | 0.23 | 0.23 | 0.45 | 0.61 | 0.31 | 0.53 | 0.82 | 0.99 | 0.24 | 0.23 | 0.44 | 0.61 | | | |
| 198 | 0.3 | 0.54 | 0.54 | 0.84 | 0.99 | 0.22 | 0.26 | 0.54 | 0.71 | 0.35 | 0.52 | 0.84 | 0.99 | 0.21 | 0.24 | 0.53 | 0.71 | 0.35 | 0.54 | 0.84 | 0.99 | 0.22 | 0.26 | 0.53 | 0.71 | 0.34 | 0.52 | 0.84 | 0.99 | 0.21 | 0.25 | 0.53 | 0.71 | | | |
| 199 | 0.3 | 0.56 | 0.56 | 0.85 | 0.99 | 0.19 | 0.24 | 0.47 | 0.63 | 0.34 | 0.55 | 0.84 | 0.99 | 0.19 | 0.24 | 0.47 | 0.63 | 0.36 | 0.56 | 0.85 | 0.99 | 0.19 | 0.24 | 0.48 | 0.62 | 0.35 | 0.55 | 0.84 | 0.99 | 0.19 | 0.24 | 0.47 | 0.63 | | | |
| 200 | 0.3 | 0.56 | 0.56 | 0.85 | 0.99 | 0.23 | 0.25 | 0.48 | 0.71 | 0.36 | 0.55 | 0.85 | 0.99 | 0.22 | 0.24 | 0.47 | 0.70 | 0.36 | 0.56 | 0.85 | 0.99 | 0.23 | 0.25 | 0.48 | 0.71 | 0.36 | 0.55 | 0.85 | 0.99 | 0.21 | 0.25 | 0.47 | 0.70 | | | |
| 201 | 0.3 | 0.56 | 0.56 | 0.84 | 0.99 | 0.21 | 0.29 | 0.52 | 0.77 | 0.35 | 0.55 | 0.83 | 0.99 | 0.20 | 0.28 | 0.51 | 0.77 | 0.37 | 0.56 | 0.84 | 0.99 | 0.20 | 0.30 | 0.52 | 0.77 | 0.35 | 0.54 | 0.83 | 0.99 | 0.20 | 0.28 | 0.51 | 0.77 | | | |
| 202 | 0.3 | 0.54 | 0.54 | 0.83 | 0.99 | 0.22 | 0.27 | 0.50 | 0.71 | 0.38 | 0.53 | 0.84 | 0.99 | 0.22 | 0.26 | 0.50 | 0.72 | 0.38 | 0.54 | 0.83 | 0.99 | 0.23 | 0.27 | 0.50 | 0.71 | 0.38 | 0.53 | 0.84 | 0.99 | 0.22 | 0.26 | 0.50 | 0.72 | | | |
| 203 | 0.3 | 0.53 | 0.53 | 0.85 | 0.99 | 0.21 | 0.28 | 0.49 | 0.73 | 0.36 | 0.52 | 0.84 | 0.98 | 0.20 | 0.27 | 0.48 | 0.72 | 0.38 | 0.54 | 0.85 | 0.99 | 0.22 | 0.27 | 0.49 | 0.73 | 0.35 | 0.52 | 0.84 | 0.98 | 0.20 | 0.27 | 0.48 | 0.72 | | | |
| 204 | 0.7 | 1.00 | 1.00 | 1.00 | 1.00 | 0.54 | 0.61 | 0.83 | 0.90 | 0.95 | 1.00 | 1.00 | 1.00 | 0.52 | 0.60 | 0.82 | 0.90 | 0.96 | 1.00 | 1.00 | 1.00 | 0.54 | 0.61 | 0.83 | 0.90 | 0.96 | 1.00 | 1.00 | 1.00 | 0.52 | 0.61 | 0.83 | 0.90 | | | |
| 205 | 0.7 | 0.99 | 0.99 | 1.00 | 1.00 | 0.57 | 0.61 | 0.82 | 0.91 | 0.94 | 0.99 | 1.00 | 1.00 | 0.56 | 0.60 | 0.82 | 0.91 | 0.95 | 0.99 | 1.00 | 1.00 | 0.57 | 0.61 | 0.82 | 0.91 | 0.94 | 0.99 | 1.00 | 1.00 | 0.55 | 0.59 | 0.82 | 0.91 | | | |
| 206 | 0.1 | 0.08 | 0.08 | 0.07 | | 0.06 | 0.07 | 0.06 | | 0.07 | 0.07 | 0.07 | | 0.06 | 0.07 | 0.06 | | 0.08 | 0.08 | 0.07 | | 0.06 | 0.07 | 0.06 | | 0.08 | 0.07 | 0.07 | | 0.06 | 0.07 | 0.06 | | | | |
| 207 | 0.1 | 0.06 | 0.06 | 0.09 | | 0.08 | 0.07 | 0.06 | | 0.08 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.06 | | 0.07 | 0.06 | 0.09 | | 0.07 | 0.07 | 0.06 | | 0.08 | 0.07 | 0.08 | | 0.07 | 0.06 | 0.06 | | | | |
| 208 | 0.1 | 0.08 | 0.08 | 0.08 | | 0.07 | 0.06 | 0.07 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.06 | 0.07 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.06 | 0.07 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.06 | 0.07 | | | | |
| 209 | 0.1 | 0.07 | 0.07 | 0.09 | | 0.06 | 0.07 | 0.06 | | 0.07 | 0.06 | 0.09 | | 0.05 | 0.06 | 0.06 | | 0.07 | 0.07 | 0.09 | | 0.06 | 0.07 | 0.06 | | 0.07 | 0.06 | 0.09 | | 0.05 | 0.07 | 0.06 | | | | |
| 210 | 0.1 | 0.07 | 0.07 | 0.09 | | 0.07 | 0.06 | 0.08 | | 0.06 | 0.07 | 0.09 | | 0.07 | 0.06 | 0.08 | | 0.06 | 0.07 | 0.09 | | 0.07 | 0.06 | 0.08 | | 0.06 | 0.06 | 0.09 | | 0.07 | 0.06 | 0.08 | | | | |
| 211 | 0.1 | 0.06 | 0.06 | 0.09 | | 0.05 | 0.07 | 0.05 | | 0.07 | 0.06 | 0.09 | | 0.06 | 0.07 | 0.06 | | 0.07 | 0.06 | 0.09 | | 0.05 | 0.07 | 0.05 | | 0.08 | 0.07 | 0.09 | | 0.05 | 0.07 | 0.06 | | | | |
| 212 | 0.1 | 0.08 | 0.08 | 0.07 | | 0.08 | 0.07 | 0.07 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.06 | 0.07 | | 0.07 | 0.08 | 0.08 | | 0.08 | 0.07 | 0.07 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.06 | 0.07 | | | | |
| 213 | 0.1 | 0.08 | 0.08 | 0.09 | | 0.07 | 0.08 | 0.08 | | 0.07 | 0.08 | 0.09 | | 0.07 | 0.07 | 0.07 | | 0.08 | 0.08 | 0.09 | | 0.07 | 0.08 | 0.08 | | 0.08 | 0.08 | 0.09 | | 0.07 | 0.07 | 0.07 | | | | |
| 214 | 0.1 | 0.12 | 0.12 | 0.15 | | 0.09 | 0.07 | 0.09 | | 0.09 | 0.11 | 0.15 | | 0.08 | 0.08 | 0.10 | | 0.09 | 0.12 | 0.16 | | 0.09 | 0.07 | 0.09 | | 0.09 | 0.12 | 0.15 | | 0.08 | 0.07 | 0.10 | | | | |
| 215 | 0.1 | 0.12 | 0.12 | 0.18 | | 0.08 | 0.07 | 0.10 | | 0.10 | 0.11 | 0.18 | | 0.09 | 0.08 | 0.10 | | 0.10 | 0.12 | 0.18 | | 0.08 | 0.07 | 0.10 | | 0.10 | 0.11 | 0.18 | | 0.09 | 0.07 | 0.10 | | | | |
| 216 | 0.1 | 0.11 | 0.11 | 0.18 | | 0.07 | 0.07 | 0.12 | | 0.10 | 0.12 | 0.18 | | 0.07 | 0.06 | 0.12 | | 0.10 | 0.11 | 0.18 | | 0.07 | 0.07 | 0.12 | | 0.10 | 0.12 | 0.18 | | 0.07 | 0.06 | 0.12 | | | | |
| 217 | 0.1 | 0.11 | 0.11 | 0.18 | | 0.06 | 0.07 | 0.11 | | 0.09 | 0.11 | 0.18 | | 0.06 | 0.07 | 0.11 | | 0.08 | 0.11 | 0.18 | | 0.06 | 0.08 | 0.11 | | 0.09 | 0.11 | 0.18 | | 0.06 | 0.07 | 0.11 | | | | |
| 218 | 0.1 | 0.12 | 0.12 | 0.18 | | 0.07 | 0.07 | 0.12 | | 0.09 | 0.12 | 0.17 | | 0.07 | 0.07 | 0.12 | | 0.09 | 0.13 | 0.17 | | 0.07 | 0.07 | 0.12 | | 0.09 | 0.12 | 0.17 | | 0.08 | 0.07 | 0.12 | | | | |
| 219 | 0.1 | 0.13 | 0.13 | 0.15 | | 0.08 | 0.09 | 0.10 | | 0.08 | 0.12 | 0.15 | | 0.06 | 0.09 | 0.10 | | 0.09 | 0.13 | 0.15 | | 0.08 | 0.09 | 0.10 | | 0.09 | 0.12 | 0.15 | | 0.07 | 0.09 | 0.10 | | | | |
| 220 | 0.1 | 0.11 | 0.11 | 0.16 | | 0.07 | 0.09 | 0.12 | | 0.07 | 0.10 | 0.17 | | 0.06 | 0.08 | 0.12 | | 0.08 | 0.10 | 0.17 | | 0.07 | 0.09 | 0.12 | | 0.07 | 0.10 | 0.17 | | 0.06 | 0.08 | 0.12 | | | | |
| 221 | 0.1 | 0.12 | 0.12 | 0.17 | | 0.09 | 0.09 | 0.11 | | 0.10 | 0.12 | 0.17 | | 0.08 | 0.09 | 0.10 | | 0.10 | 0.12 | 0.17 | | 0.09 | 0.09 | 0.11 | | 0.11 | 0.12 | 0.17 | | 0.08 | 0.09 | 0.10 | | | | |
| 222 | 0.3 | 0.19 | 0.19 | 0.31 | 0.55 | 0.09 | 0.10 | 0.20 | 0.32 | 0.12 | 0.19 | 0.32 | 0.55 | 0.09 | 0.11 | 0.19 | 0.31 | 0.12 | 0.19 | 0.32 | 0.55 | 0.09 | 0.10 | 0.20 | 0.32 | 0.12 | 0.18 | 0.32 | 0.55 | 0.09 | 0.11 | 0.19 | 0.31 | | | |
| 223 | 0.3 | 0.18 | 0.18 | 0.33 | 0.55 | 0.09 | 0.09 | 0.19 | 0.32 | 0.15 | 0.18 | 0.32 | 0.54 | 0.08 | 0.10 | 0.18 | 0.32 | 0.14 | 0.18 | 0.32 | 0.54 | 0.09 | 0.09 | 0.19 | 0.32 | 0.15 | 0.18 | 0.32 | 0.54 | 0.08 | 0.09 | 0.18 | 0.32 | | | |
| 224 | 0.3 | 0.19 | 0.19 | 0.32 | 0.56 | 0.09 | 0.10 | 0.18 | 0.30 | 0.13 | 0.18 | 0.31 | 0.56 | 0.10 | 0.10 | 0.18 | 0.30 | 0.13 | 0.19 | 0.33 | 0.56 | 0.09 | 0.10 | 0.18 | 0.30 | 0.13 | 0.19 | 0.32 | 0.55 | 0.10 | 0.11 | 0.18 | 0.30 | | | |
| 225 | 0.3 | 0.18 | 0.18 | 0.31 | 0.56 | 0.10 | 0.09 | 0.19 | 0.28 | 0.14 | 0.17 | 0.30 | 0.56 | 0.10 | 0.08 | 0.19 | 0.28 | 0.14 | 0.18 | 0.31 | 0.56 | 0.10 | 0.09 | 0.19 | 0.28 | 0.13 | 0.17 | 0.31 | 0.56 | 0.10 | 0.08 | 0.19 | 0.28 | | | |
| 226 | 0.3 | 0.18 | 0.18 | 0.34 | 0.56 | 0.09 | 0.11 | 0.18 | 0.30 | 0.13 | 0.17 | 0.34 | 0.56 | 0.10 | 0.10 | 0.18 | 0.30 | 0.14 | 0.18 | 0.34 | 0.56 | 0.09 | 0.11 | 0.18 | 0.30 | 0.12 | 0.18 | 0.34 | 0.56 | 0.09 | 0.10 | 0.18 | 0.30 | | | |
| 227 | 0.3 | 0.56 | 0.56 | 0.84 | 0.99 | 0.19 | 0.21 | 0.45 | 0.64 | 0.36 | 0.55 | 0.83 | 0.99 | 0.18 | 0.21 | 0.44 | 0.65 | 0.39 | 0.56 | 0.84 | 0.99 | 0.19 | 0.21 | 0.45 | 0.64 | 0.36 | 0.54 | 0.83 | 0.99 | 0.18 | 0.22 | 0.44 | 0.65 | | | |
| 228 | 0.3 | 0.54 | 0.54 | 0.85 | 0.99 | 0.22 | 0.21 | 0.44 | 0.64 | 0.36 | 0.54 | 0.84 | 0.99 | 0.21 | 0.20 | 0.44 | 0.65 | 0.37 | 0.54 | 0.85 | 0.99 | 0.22 | 0.21 | 0.44 | 0.65 | 0.35 | 0.53 | 0.84 | 0.99 | 0.22 | 0.20 | 0.45 | 0.65 | | | |
| 229 | 0.3 | 0.55 | 0.55 | 0.85 | 0.99 | 0.22 | 0.27 | 0.48 | 0.73 | 0.36 | 0.53 | 0.84 | 0.99 | 0.21 | 0.26 | 0.48 | 0.74 | 0.36 | 0.55 | 0.85 | 0.99 | 0.22 | 0.27 | 0.48 | 0.73 | 0.36 | 0.53 | 0.84 | 0.99 | 0.21 | 0.25 | 0.47 | 0.74 | | | |
| 230 | 0.3 | 0.55 | 0.55 | 0.83 | 0.98 | 0.20 | 0.22 | 0.45 | 0.62 | 0.37 | 0.53 | 0.83 | 0.98 | 0.19 | 0.22 | 0.45 | 0.62 | 0.36 | 0.55 | 0.83 | 0.98 | 0.20 | 0.22 | 0.45 | 0.62 | 0.37 | 0.53 | 0.83 | 0.98 | 0.19 | 0.21 | 0.45 | 0.62 | | | |
| 231 | 0.3 | 0.56 | 0.56 | 0.83 | 0.99 | 0.23 | 0.24 | 0.50 | 0.71 | 0.38 | 0.55 | 0.83 | 0.99 | 0.21 | 0.24 | 0.49 | 0.70 | 0.37 | 0.56 | 0.83 | 0.99 | 0.23 | 0.24 | 0.50 | 0.71 | 0.37 | 0.55 | 0.84 | 0.99 | 0.22 | 0.24 | 0.49 | 0.70 | | | |
| 232 | 0.3 | 0.56 | 0.56 | 0.85 | 0.99 | 0.21 | 0.27 | 0.55 | 0.79 | 0.34 | 0.56 | 0.85 | 0.98 | 0.22 | 0.27 | 0.52 | 0.79 | 0.35 | 0.55 | 0.85 | 0.99 | 0.21 | 0.28 | 0.55 | 0.79 | 0.34 | 0.55 | 0.84 | 0.99 | 0.21 | 0.28 | 0.53 | 0.79 | | | |
| 233 | 0.3 | 0.54 | 0.54 | 0.84 | 0.99 | 0.20 | 0.26 | 0.51 | 0.71 | 0.35 | 0.53 | 0.84 | 0.99 | 0.20 | 0.25 | 0.49 | 0.72 | 0

The accuracy of the Level-3 parameter estimates was calculated by the absolute relative bias (Tables 28 to 27 and Figures 45 to 51). Similar to Level-2, as effect size increases from 0.1 to 0.7, the absolute relative bias decreases for all predictor and error variance scenarios considered. For initial error variance $\sigma_e^2 = 1.0$, the absolute relative bias (Figures 45 to 51: left-hand side) was less than initial error variance $\sigma_e^2 = 2.0$ (Figures 45 to 51: right-hand side) and most noticeable for effect size 0.7 (Figures: 45 to 51: shown in green).

Though the Level-3 parameters achieved minimum sufficient power of 0.80 with fewer re-sampled samples at each level for initial error variance $\sigma_e^2 = 2.0$ and effect size 0.3 and 0.7, the associated parameters when re-sampled to larger sample sizes had larger absolute relative bias. Whereas, initial error variance $\sigma_e^2 = 1.0$ required more samples per level, the associated parameters when re-sampled to larger sample sizes had smaller absolute relative bias overall. The average absolute relative bias remains fairly consistent across re-sampled sample sizes (variations are due to averaging) and ranges from about 0.00 to 0.30.

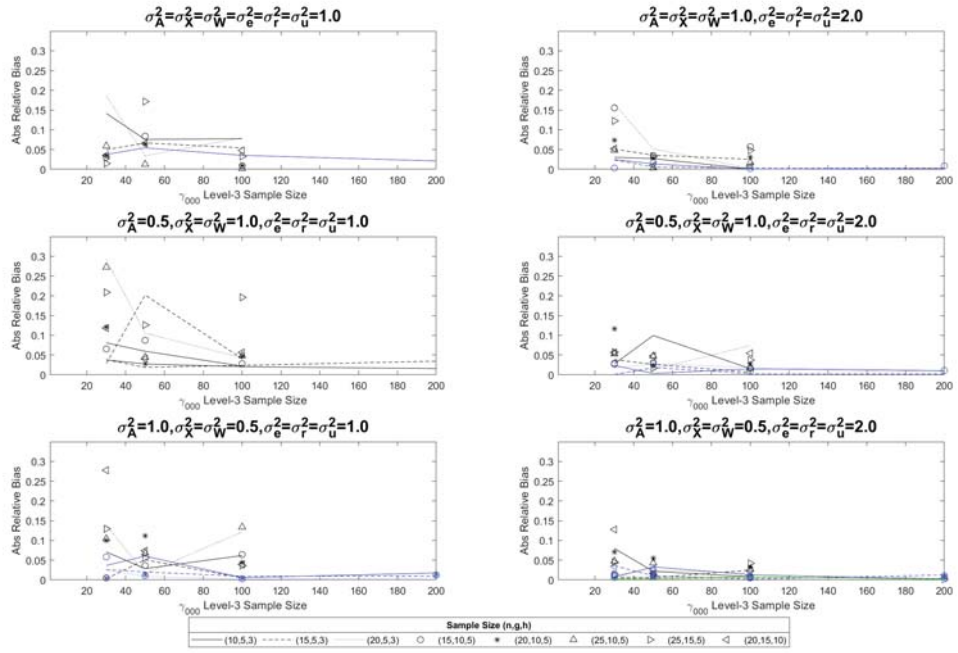


**Figure 45. Level-3 $\gamma_{000}$ re-sampled sample size absolute relative bias results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios $\sigma_A^2 = \sigma_X^2 = \sigma_W^2 = 1.0$ (top), $\sigma_A^2 = 0.5$,$\sigma_X^2 = \sigma_W^2 = 1.0$ (middle), and $\sigma_A^2 = 1.0$,$\sigma_X^2 = \sigma_W^2 = 0.5$ (bottom).**

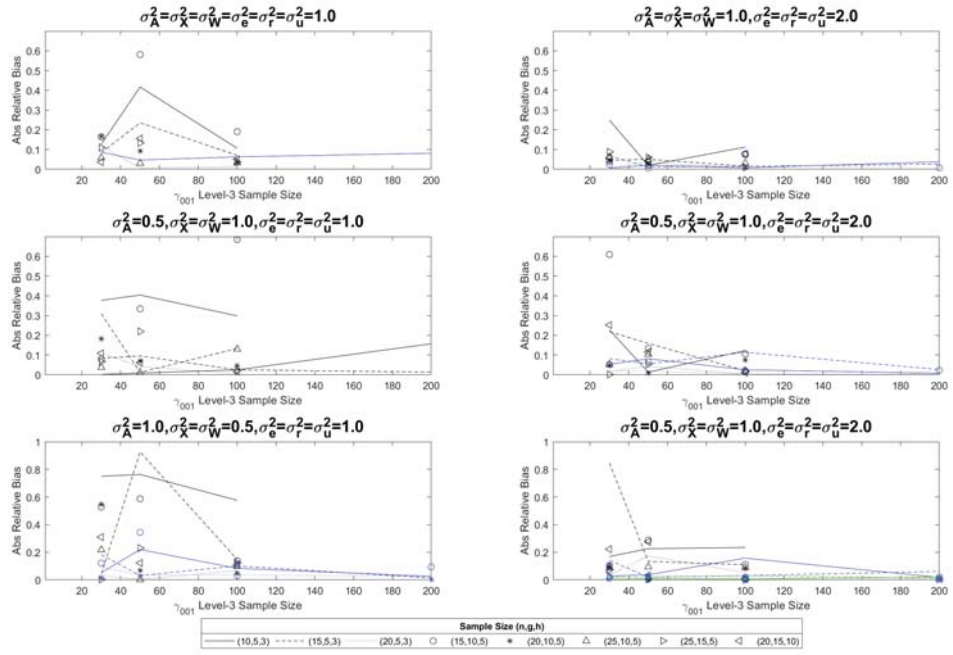


**Figure 46. Level-3 $\gamma_{001}$ re-sampled sample size absolute relative bias results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios $\sigma^2_A = \sigma^2_X = \sigma^2_W = 1.0$ (top), $\sigma^2_A = 0.5$,$\sigma^2_X = \sigma^2_W = 1.0$ (middle), and $\sigma^2_A = 1.0$,$\sigma^2_X = \sigma^2_W = 0.5$ (bottom).**

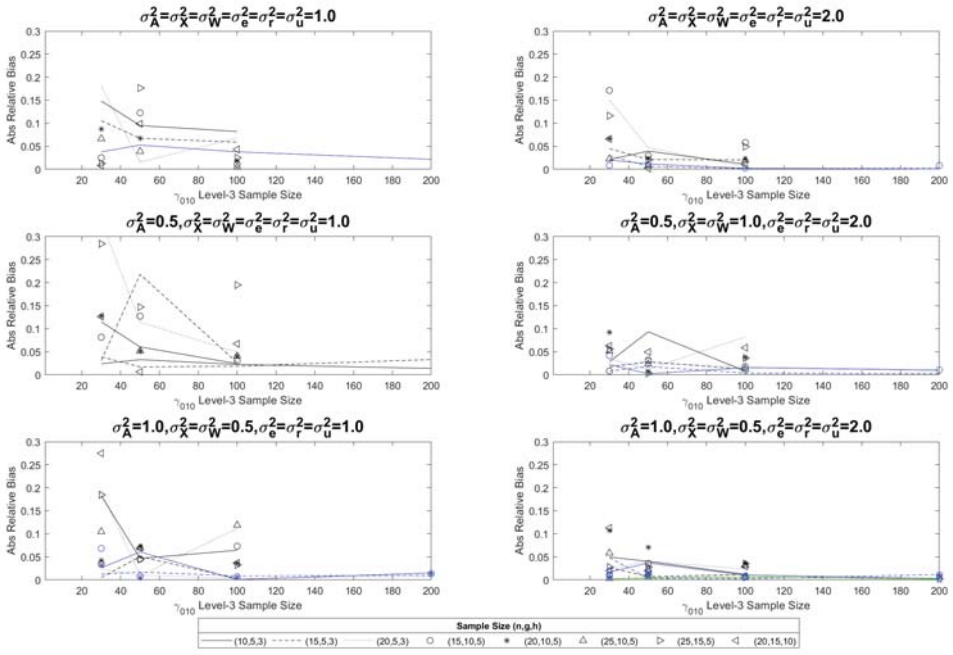


**Figure 47. Level-3 $\gamma_{010}$ re-sampled sample size absolute relative bias results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios $\sigma^2_A = \sigma^2_X = \sigma^2_W = 1.0$ (top), $\sigma^2_A = 0.5$,$\sigma^2_X = \sigma^2_W = 1.0$ (middle), and $\sigma^2_A = 1.0$,$\sigma^2_X = \sigma^2_W = 0.5$ (bottom).**

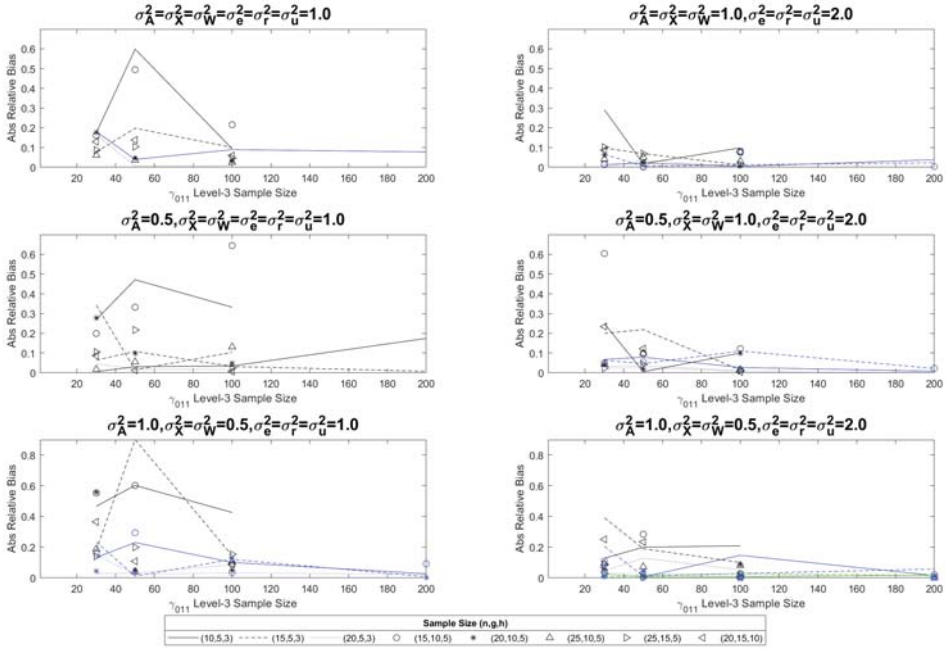


**Figure 48. Level-3 $\gamma_{011}$ re-sampled sample size absolute relative bias results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios $\sigma^2_A = \sigma^2_X = \sigma^2_W = 1.0$ (top), $\sigma^2_A = 0.5$,$\sigma^2_X = \sigma^2_W = 1.0$ (middle), and $\sigma^2_A = 1.0$,$\sigma^2_X = \sigma^2_W = 0.5$ (bottom).**

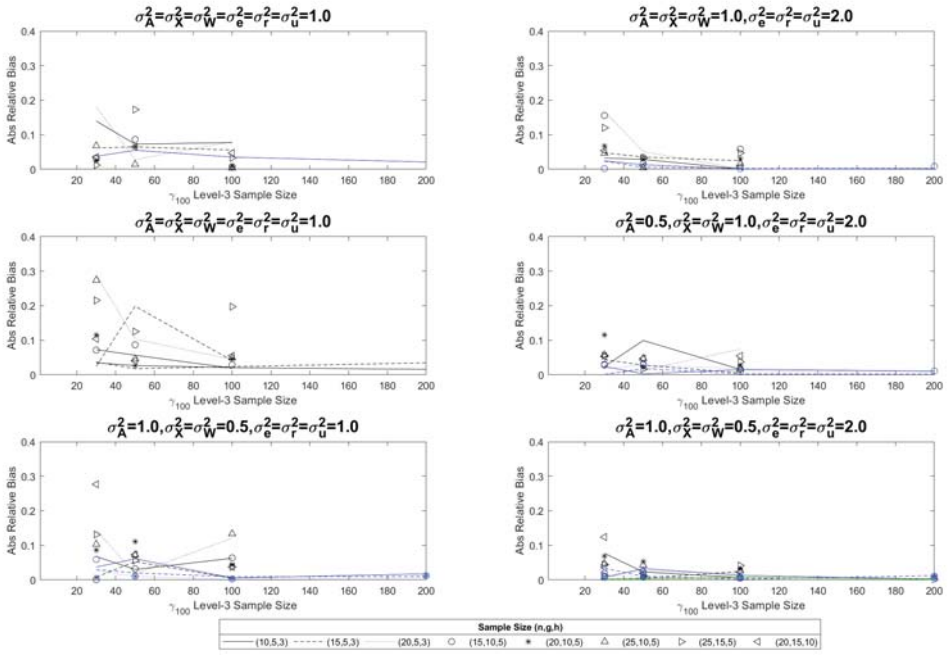


**Figure 49. Level-3 $\gamma_{100}$ re-sampled sample size absolute relative bias results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios $\sigma^2_A = \sigma^2_X = \sigma^2_W = 1.0$ (top), $\sigma^2_A = 0.5$,$\sigma^2_X = \sigma^2_W = 1.0$ (middle), and $\sigma^2_A = 1.0$,$\sigma^2_X = \sigma^2_W = 0.5$ (bottom).**

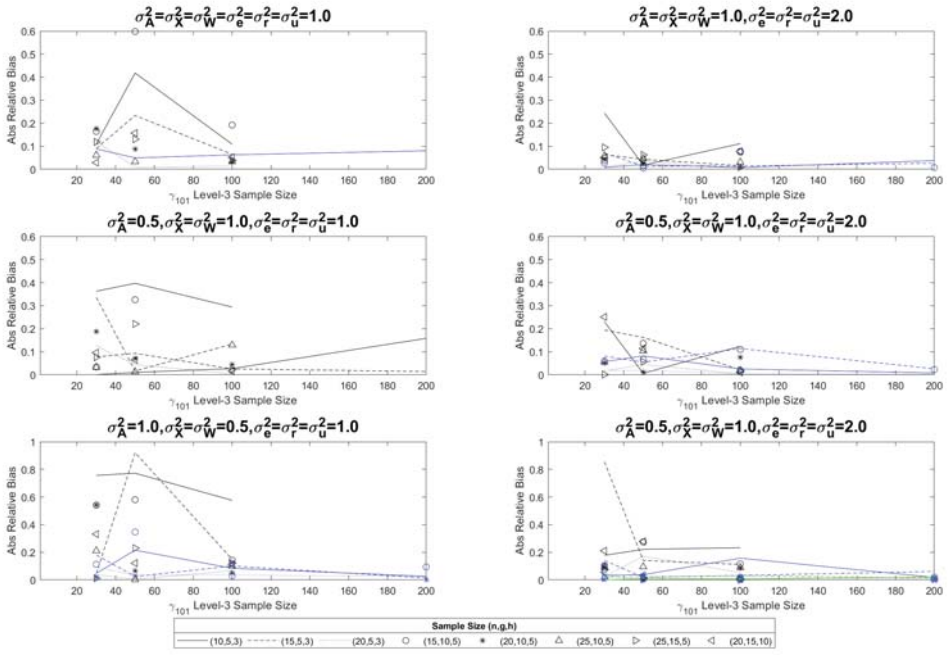


**Figure 50. Level-3 $\gamma_{101}$ re-sampled sample size absolute relative bias results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios $\sigma^2_A = \sigma^2_X = \sigma^2_W = 1.0$ (top), $\sigma^2_A = 0.5$,$\sigma^2_X = \sigma^2_W = 1.0$ (middle), and $\sigma^2_A = 1.0$,$\sigma^2_X = \sigma^2_W = 0.5$ (bottom).**

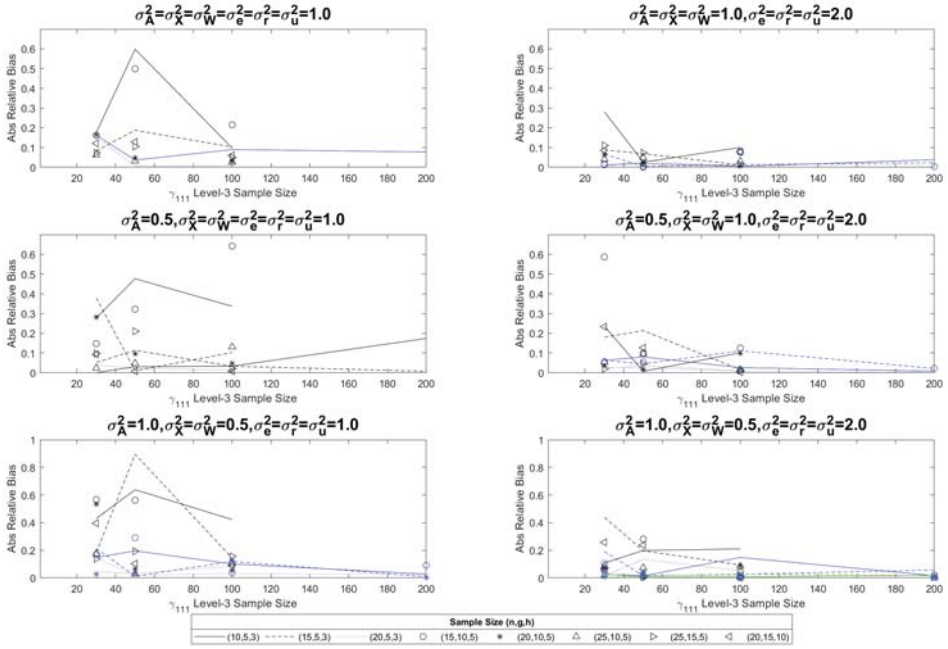


**Figure 51. Level-3 $\gamma_{111}$ re-sampled sample size absolute relative bias results for varying effect sizes (0.1 black, 0.3 blue, and 0.7 green) and scenarios $\sigma^2_A = \sigma^2_X = \sigma^2_W = 1.0$ (top), $\sigma^2_A = 0.5$,$\sigma^2_X = \sigma^2_W = 1.0$ (middle), and $\sigma^2_A = 1.0$,$\sigma^2_X = \sigma^2_W = 0.5$ (bottom).**

**Table 28. Average absolute relative bias values for Level-3 parameters based on the re-sampled sample sizes for conditions 1 - 75.**

| | | Level-3 Parameter Absolute Relative Bias | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Effect Size | $\gamma_{000}$ | | | | $\gamma_{001}$ | | | | $\gamma_{010}$ | | | | $\gamma_{011}$ | | | | $\gamma_{100}$ | | | | $\gamma_{101}$ | | | | $\gamma_{110}$ | | | | $\gamma_{111}$ | | | |
| 1 | 0.1 | 0.141 | 0.011 | 0.016 | | 0.207 | 0.604 | 0.018 | | 0.148 | 0.011 | 0.010 | | 0.197 | 0.556 | 0.067 | | 0.140 | 0.009 | 0.016 | | 0.203 | 0.606 | 0.019 | | 0.138 | 0.008 | 0.009 | | 0.194 | 0.596 | 0.066 | |
| 2 | 0.1 | 0.067 | 0.019 | 0.066 | | 0.078 | 0.413 | 0.102 | | 0.051 | 0.014 | 0.072 | | 0.241 | 0.353 | 0.142 | | 0.062 | 0.019 | 0.066 | | 0.058 | 0.436 | 0.108 | | 0.053 | 0.015 | 0.071 | | 0.224 | 0.405 | 0.139 | |
| 3 | 0.1 | 0.032 | 0.118 | 0.097 | | 0.002 | 0.091 | 0.110 | | 0.009 | 0.100 | 0.103 | | 0.148 | 0.018 | 0.079 | | 0.029 | 0.121 | 0.097 | | 0.017 | 0.097 | 0.107 | | 0.026 | 0.100 | 0.103 | | 0.155 | 0.025 | 0.081 | |
| 4 | 0.1 | 0.024 | 0.051 | 0.032 | | 1.095 | 0.262 | 0.210 | | 0.086 | 0.100 | 0.014 | | 0.900 | 0.052 | 0.190 | | 0.042 | 0.049 | 0.031 | | 1.147 | 0.257 | 0.206 | | 0.100 | 0.099 | 0.013 | | 0.837 | 0.101 | 0.191 | |
| 5 | 0.1 | 0.204 | 0.050 | 0.011 | | 0.153 | 0.063 | 0.112 | | 0.163 | 0.037 | 0.000 | | 0.114 | 0.056 | 0.140 | | 0.204 | 0.053 | 0.009 | | 0.149 | 0.058 | 0.113 | | 0.168 | 0.042 | 0.001 | | 0.117 | 0.054 | 0.138 | |
| 6 | 0.1 | 0.103 | 0.081 | 0.090 | | 0.091 | 0.016 | 0.043 | | 0.084 | 0.123 | 0.079 | | 0.073 | 0.015 | 0.056 | | 0.112 | 0.082 | 0.088 | | 0.107 | 0.017 | 0.042 | | 0.084 | 0.124 | 0.079 | | 0.072 | 0.033 | 0.056 | |
| 7 | 0.1 | 0.095 | 0.028 | 0.014 | | 0.336 | 0.060 | 0.048 | | 0.007 | 0.026 | 0.019 | | 0.331 | 0.036 | 0.064 | | 0.091 | 0.028 | 0.015 | | 0.350 | 0.055 | 0.051 | | 0.011 | 0.025 | 0.019 | | 0.329 | 0.033 | 0.065 | |
| 8 | 0.1 | 0.045 | 0.179 | 0.050 | | 0.134 | 0.074 | 0.157 | | 0.085 | 0.186 | 0.050 | | 0.173 | 0.072 | 0.148 | | 0.041 | 0.183 | 0.049 | | 0.133 | 0.070 | 0.156 | | 0.091 | 0.188 | 0.049 | | 0.167 | 0.062 | 0.151 | |
| 9 | 0.1 | 0.054 | 0.017 | 0.027 | | 0.212 | 0.115 | 0.092 | | 0.035 | 0.004 | 0.034 | | 0.164 | 0.111 | 0.095 | | 0.055 | 0.016 | 0.026 | | 0.212 | 0.124 | 0.094 | | 0.040 | 0.003 | 0.034 | | 0.182 | 0.114 | 0.095 | |
| 10 | 0.1 | 0.022 | 0.037 | 0.010 | | 0.085 | 0.028 | 0.006 | | 0.024 | 0.047 | 0.005 | | 0.490 | 0.041 | 0.025 | | 0.019 | 0.037 | 0.010 | | 0.098 | 0.028 | 0.006 | | 0.023 | 0.046 | 0.005 | | 0.456 | 0.039 | 0.026 | |
| 11 | 0.1 | 0.140 | 0.043 | 0.024 | | 0.117 | 0.038 | 0.053 | | 0.091 | 0.041 | 0.012 | | 0.015 | 0.076 | 0.049 | | 0.135 | 0.042 | 0.024 | | 0.110 | 0.036 | 0.053 | | 0.092 | 0.042 | 0.012 | | 0.017 | 0.077 | 0.050 | |
| 12 | 0.1 | 0.016 | 0.052 | 0.007 | | 0.045 | 0.066 | 0.007 | | 0.007 | 0.058 | 0.007 | | 0.060 | 0.067 | 0.004 | | 0.016 | 0.051 | 0.006 | | 0.050 | 0.068 | 0.007 | | 0.008 | 0.057 | 0.008 | | 0.068 | 0.004 | 0.003 | |
| 13 | 0.1 | 0.041 | 0.012 | 0.015 | | 0.109 | 0.048 | 0.031 | | 0.057 | 0.009 | 0.013 | | 0.036 | 0.065 | 0.016 | | 0.046 | 0.013 | 0.015 | | 0.108 | 0.048 | 0.031 | | 0.058 | 0.008 | 0.013 | | 0.030 | 0.065 | 0.016 | |
| 14 | 0.1 | 0.103 | 0.046 | 0.059 | | 0.085 | 0.017 | 0.003 | | 0.100 | 0.053 | 0.043 | | 0.060 | 0.061 | 0.001 | | 0.104 | 0.047 | 0.059 | | 0.088 | 0.017 | 0.004 | | 0.104 | 0.050 | 0.043 | | 0.063 | 0.001 | 0.001 | |
| 15 | 0.1 | 0.047 | 0.033 | 0.018 | | 0.012 | 0.107 | 0.009 | | 0.048 | 0.039 | 0.022 | | 0.031 | 0.110 | 0.012 | | 0.039 | 0.034 | 0.018 | | 0.018 | 0.104 | 0.008 | | 0.048 | 0.040 | 0.023 | | 0.034 | 0.118 | 0.012 | |
| 16 | 0.1 | 0.082 | 0.048 | 0.000 | | 0.065 | 0.073 | 0.066 | | 0.096 | 0.061 | 0.002 | | 0.042 | 0.077 | 0.091 | | 0.086 | 0.049 | 0.001 | | 0.069 | 0.071 | 0.065 | | 0.094 | 0.063 | 0.002 | | 0.041 | 0.076 | 0.092 | |
| 17 | 0.3 | 0.008 | 0.030 | 0.020 | 0.021 | 0.126 | 0.077 | 0.031 | 0.005 | 0.015 | 0.039 | 0.022 | 0.021 | 0.113 | 0.074 | 0.026 | 0.004 | 0.007 | 0.029 | 0.020 | 0.021 | 0.134 | 0.071 | 0.030 | 0.005 | 0.017 | 0.040 | 0.021 | 0.021 | 0.111 | 0.077 | 0.026 | 0.004 |
| 18 | 0.3 | 0.052 | 0.009 | 0.068 | 0.019 | 0.157 | 0.091 | 0.013 | 0.117 | 0.059 | 0.011 | 0.059 | 0.021 | 0.154 | 0.072 | 0.020 | 0.114 | 0.053 | 0.008 | 0.068 | 0.019 | 0.154 | 0.093 | 0.012 | 0.116 | 0.058 | 0.011 | 0.058 | 0.021 | 0.152 | 0.069 | 0.021 | 0.114 |
| 19 | 0.3 | 0.053 | 0.012 | 0.021 | 0.027 | 0.049 | 0.040 | 0.042 | 0.064 | 0.043 | 0.009 | 0.009 | 0.028 | 0.008 | 0.042 | 0.018 | 0.058 | 0.051 | 0.011 | 0.022 | 0.027 | 0.038 | 0.040 | 0.042 | 0.064 | 0.042 | 0.008 | 0.009 | 0.028 | 0.008 | 0.040 | 0.019 | 0.058 |
| 20 | 0.3 | 0.004 | 0.023 | 0.007 | 0.009 | 0.064 | 0.051 | 0.038 | 0.041 | 0.019 | 0.026 | 0.010 | 0.010 | 0.049 | 0.056 | 0.044 | 0.046 | 0.004 | 0.023 | 0.007 | 0.009 | 0.060 | 0.050 | 0.038 | 0.041 | 0.019 | 0.025 | 0.009 | 0.010 | 0.044 | 0.055 | 0.043 | 0.045 |
| 21 | 0.3 | 0.014 | 0.004 | 0.007 | 0.001 | 0.039 | 0.006 | 0.012 | 0.015 | 0.021 | 0.002 | 0.008 | 0.001 | 0.059 | 0.007 | 0.013 | 0.018 | 0.015 | 0.004 | 0.006 | 0.001 | 0.033 | 0.006 | 0.012 | 0.015 | 0.022 | 0.001 | 0.008 | 0.001 | 0.060 | 0.007 | 0.012 | 0.018 |
| 22 | 0.3 | 0.001 | 0.003 | 0.013 | 0.007 | 0.032 | 0.010 | 0.002 | 0.008 | 0.002 | 0.008 | 0.012 | 0.006 | 0.018 | 0.012 | 0.001 | 0.009 | 0.003 | 0.004 | 0.013 | 0.007 | 0.031 | 0.012 | 0.002 | 0.008 | 0.002 | 0.007 | 0.013 | 0.006 | 0.018 | 0.012 | 0.000 | 0.009 |
| 23 | 0.3 | 0.040 | 0.005 | 0.020 | 0.004 | 0.024 | 0.039 | 0.004 | 0.005 | 0.037 | 0.006 | 0.016 | 0.004 | 0.039 | 0.055 | 0.001 | 0.006 | 0.041 | 0.004 | 0.020 | 0.004 | 0.031 | 0.040 | 0.004 | 0.005 | 0.038 | 0.005 | 0.015 | 0.004 | 0.039 | 0.055 | 0.001 | 0.006 |
| 24 | 0.3 | 0.012 | 0.018 | 0.003 | 0.008 | 0.012 | 0.001 | 0.004 | 0.004 | 0.012 | 0.022 | 0.003 | 0.007 | 0.016 | 0.003 | 0.009 | 0.003 | 0.012 | 0.018 | 0.003 | 0.008 | 0.011 | 0.002 | 0.004 | 0.004 | 0.012 | 0.022 | 0.003 | 0.007 | 0.017 | 0.003 | 0.009 | 0.003 |
| 25 | 0.1 | 0.142 | 0.075 | 0.077 | | 0.127 | 0.417 | 0.106 | | 0.148 | 0.095 | 0.082 | | 0.174 | 0.559 | 0.094 | | 0.140 | 0.073 | 0.077 | | 0.109 | 0.418 | 0.109 | | 0.142 | 0.099 | 0.083 | | 0.175 | 0.598 | 0.098 | |
| 26 | 0.1 | 0.050 | 0.067 | 0.054 | | 0.085 | 0.235 | 0.071 | | 0.105 | 0.067 | 0.059 | | 0.078 | 0.158 | 0.101 | | 0.062 | 0.065 | 0.056 | | 0.090 | 0.234 | 0.065 | | 0.102 | 0.064 | 0.061 | | 0.083 | 0.187 | 0.103 | |
| 27 | 0.1 | 0.186 | 0.034 | 0.080 | | 0.117 | 0.007 | 0.014 | | 0.180 | 0.016 | 0.068 | | 0.165 | 0.067 | 0.008 | | 0.181 | 0.028 | 0.080 | | 0.121 | 0.008 | 0.014 | | 0.187 | 0.012 | 0.068 | | 0.152 | 0.007 | 0.008 | |
| 28 | 0.1 | 0.030 | 0.084 | 0.009 | | 0.164 | 0.581 | 0.190 | | 0.025 | 0.123 | 0.011 | | 0.161 | 0.455 | 0.216 | | 0.031 | 0.087 | 0.008 | | 0.164 | 0.598 | 0.192 | | 0.023 | 0.119 | 0.010 | | 0.162 | 0.499 | 0.215 | |
| 29 | 0.1 | 0.034 | 0.064 | 0.009 | | 0.167 | 0.094 | 0.035 | | 0.088 | 0.067 | 0.019 | | 0.176 | 0.046 | 0.029 | | 0.025 | 0.065 | 0.009 | | 0.177 | 0.088 | 0.033 | | 0.089 | 0.066 | 0.019 | | 0.165 | 0.048 | 0.030 | |
| 30 | 0.1 | 0.059 | 0.013 | 0.002 | | 0.058 | 0.031 | 0.033 | | 0.066 | 0.039 | 0.005 | | 0.061 | 0.016 | 0.025 | | 0.068 | 0.014 | 0.003 | | 0.061 | 0.033 | 0.033 | | 0.060 | 0.040 | 0.006 | | 0.062 | 0.032 | 0.025 | |
| 31 | 0.1 | 0.015 | 0.172 | 0.032 | | 0.110 | 0.133 | 0.037 | | 0.013 | 0.176 | 0.025 | | 0.087 | 0.164 | 0.046 | | 0.012 | 0.173 | 0.033 | | 0.119 | 0.131 | 0.039 | | 0.013 | 0.177 | 0.025 | | 0.074 | 0.105 | 0.050 | |
| 32 | 0.1 | 0.035 | 0.065 | 0.048 | | 0.036 | 0.156 | 0.050 | | 0.008 | 0.099 | 0.043 | | 0.129 | 0.138 | 0.059 | | 0.036 | 0.065 | 0.047 | | 0.029 | 0.158 | 0.052 | | 0.001 | 0.094 | 0.044 | | 0.121 | 0.129 | 0.060 | |
| 33 | 0.1 | 0.030 | 0.027 | 0.001 | | 0.249 | 0.020 | 0.112 | | 0.021 | 0.039 | 0.011 | | 0.292 | 0.018 | 0.098 | | 0.033 | 0.029 | 0.001 | | 0.244 | 0.018 | 0.111 | | 0.027 | 0.041 | 0.011 | | 0.281 | 0.026 | 0.101 | |
| 34 | 0.1 | 0.051 | 0.036 | 0.025 | | 0.045 | 0.051 | 0.016 | | 0.045 | 0.021 | 0.020 | | 0.097 | 0.069 | 0.012 | | 0.048 | 0.035 | 0.025 | | 0.064 | 0.043 | 0.016 | | 0.048 | 0.024 | 0.020 | | 0.088 | 0.069 | 0.012 | |
| 35 | 0.1 | 0.165 | 0.052 | 0.002 | | 0.009 | 0.036 | 0.006 | | 0.150 | 0.047 | 0.006 | | 0.001 | 0.015 | 0.004 | | 0.167 | 0.051 | 0.002 | | 0.010 | 0.035 | 0.006 | | 0.149 | 0.047 | 0.007 | | 0.004 | 0.033 | 0.005 | |
| 36 | 0.1 | 0.155 | 0.035 | 0.057 | | 0.040 | 0.021 | 0.074 | | 0.171 | 0.030 | 0.058 | | 0.016 | 0.062 | 0.080 | | 0.156 | 0.034 | 0.058 | | 0.037 | 0.016 | 0.075 | | 0.168 | 0.031 | 0.059 | | 0.016 | 0.001 | 0.080 | |
| 37 | 0.1 | 0.074 | 0.029 | 0.030 | | 0.042 | 0.024 | 0.010 | | 0.066 | 0.024 | 0.022 | | 0.064 | 0.024 | 0.007 | | 0.068 | 0.029 | 0.030 | | 0.042 | 0.024 | 0.009 | | 0.069 | 0.023 | 0.022 | | 0.066 | 0.022 | 0.007 | |
| 38 | 0.1 | 0.048 | 0.004 | 0.017 | | 0.062 | 0.048 | 0.031 | | 0.023 | 0.008 | 0.019 | | 0.042 | 0.051 | 0.031 | | 0.046 | 0.005 | 0.017 | | 0.058 | 0.047 | 0.031 | | 0.026 | 0.005 | 0.020 | | 0.041 | 0.050 | 0.030 | |
| 39 | 0.1 | 0.122 | 0.033 | 0.048 | | 0.088 | 0.060 | 0.010 | | 0.116 | 0.020 | 0.049 | | 0.102 | 0.069 | 0.014 | | 0.120 | 0.033 | 0.047 | | 0.095 | 0.063 | 0.010 | | 0.118 | 0.020 | 0.049 | | 0.111 | 0.073 | 0.014 | |
| 40 | 0.1 | 0.052 | 0.010 | 0.008 | | 0.058 | 0.043 | 0.078 | | 0.066 | 0.002 | 0.011 | | 0.087 | 0.020 | 0.078 | | 0.054 | 0.010 | 0.008 | | 0.050 | 0.041 | 0.078 | | 0.061 | 0.001 | 0.011 | | 0.085 | 0.018 | 0.078 | |
| 41 | 0.3 | 0.038 | 0.054 | 0.035 | 0.021 | 0.086 | 0.047 | 0.063 | 0.081 | 0.038 | 0.053 | 0.038 | 0.022 | 0.181 | 0.040 | 0.089 | 0.078 | 0.038 | 0.055 | 0.035 | 0.021 | 0.088 | 0.049 | 0.063 | 0.080 | 0.040 | 0.052 | 0.038 | 0.022 | 0.163 | 0.036 | 0.090 | 0.078 |
| 42 | 0.3 | 0.025 | 0.014 | 0.000 | 0.002 | 0.005 | 0.020 | 0.008 | 0.038 | 0.020 | 0.012 | 0.002 | 0.000 | 0.013 | 0.021 | 0.005 | 0.038 | 0.024 | 0.013 | 0.000 | 0.002 | 0.008 | 0.021 | 0.008 | 0.038 | 0.020 | 0.011 | 0.002 | 0.000 | 0.012 | 0.019 | 0.004 | 0.038 |
| 43 | 0.3 | 0.024 | 0.006 | 0.003 | 0.003 | 0.068 | 0.012 | 0.015 | 0.026 | 0.030 | 0.006 | 0.001 | 0.002 | 0.065 | 0.065 | 0.012 | 0.023 | 0.023 | 0.005 | 0.003 | 0.003 | 0.070 | 0.014 | 0.014 | 0.026 | 0.028 | 0.005 | 0.001 | 0.002 | 0.067 | 0.004 | 0.013 | 0.023 |
| 44 | 0.3 | 0.003 | 0.017 | 0.002 | 0.009 | 0.025 | 0.006 | 0.079 | 0.008 | 0.009 | 0.012 | 0.002 | 0.008 | 0.014 | 0.004 | 0.075 | 0.003 | 0.002 | 0.017 | 0.002 | 0.009 | 0.026 | 0.005 | 0.078 | 0.008 | 0.008 | 0.011 | 0.002 | 0.008 | 0.013 | 0.004 | 0.076 | 0.004 |
| 45 | 0.1 | 0.068 | 0.048 | 0.067 | | 0.094 | 0.073 | 0.136 | | 0.052 | 0.057 | 0.064 | | 0.169 | 0.053 | 0.151 | | 0.062 | 0.045 | 0.068 | | 0.099 | 0.075 | 0.132 | | 0.058 | 0.062 | 0.064 | | 0.174 | 0.052 | 0.153 | |
| 46 | 0.1 | 0.128 | 0.004 | 0.071 | | 0.344 | 0.150 | 0.214 | | 0.134 | 0.004 | 0.060 | | 0.225 | 0.147 | 0.237 | | 0.133 | 0.005 | 0.070 | | 0.343 | 0.149 | 0.217 | | 0.136 | 0.006 | 0.061 | | 0.193 | 0.150 | 0.239 | |
| 47 | 0.1 | 0.044 | 0.073 | 0.094 | | 0.294 | 0.087 | 0.143 | | 0.090 | 0.095 | 0.088 | | 0.259 | 0.024 | 0.167 | | 0.054 | 0.072 | 0.094 | | 0.302 | 0.084 | 0.145 | | 0.083 | 0.097 | 0.086 | | 0.255 | 0.025 | 0.164 | |
| 48 | 0.1 | 0.183 | 0.015 | 0.071 | | 0.781 | 0.195 | 0.081 | | 0.173 | 0.018 | 0.061 | | 0.799 | 0.152 | 0.060 | | 0.184 | 0.018 | 0.071 | | 0.800 | 0.181 | 0.079 | | 0.170 | 0.017 | 0.061 | | 0.788 | 0.184 | 0.057 | |
| 49 | 0.1 | 0.055 | 0.066 | 0.068 | | 0.062 | 0.110 | 0.161 | | 0.025 | 0.031 | 0.068 | | 0.103 | 0.136 | 0.136 | | 0.057 | 0.068 | 0.068 | | 0.062 | 0.108 | 0.159 | | 0.015 | 0.033 | 0.067 | | 0.088 | 0.133 | 0.138 | |
| 50 | 0.1 | 0.023 | 0.039 | 0.007 | | 0.348 | 0.076 | 0.046 | | 0.041 | 0.054 | 0.009 | | 0.392 | 0.055 | 0.060 | | 0.018 | 0.039 | 0.008 | | 0.343 | 0.074 | 0.048 | | 0.033 | 0.058 | 0.008 | | 0.379 | 0.093 | 0.060 | |
| 51 | 0.1 | 0.009 | 0.056 | 0.121 | | 0.315 | 0.134 | 0.094 | | 0.008 | 0.088 | 0.149 | | 0.365 | 0.164 | 0.115 | | 0.013 | 0.060 | 0.120 | | 0.308 | 0.133 | 0.093 | | 0.006 | 0.083 | 0.147 | | 0.367 | 0.165 | 0.116 | |
| 52 | 0.1 | 0.135 | 0.095 | 0.047 | | 0.036 | 0.128 | 0.019 | | 0.112 | 0.101 | 0.035 | | 0.055 | 0.073 | 0.007 | | 0.141 | 0.097 | 0.047 | | 0.046 | 0.129 | 0.019 | | 0.130 | 0.096 | 0.035 | | 0.069 | 0.068 | 0.006 | |
| 53 | 0.1 | 0.016 | 0.043 | 0.013 | | 0.102 | 0.139 | 0.004 | | 0.030 | 0.047 | 0.016 | | 0.061 | 0.057 | 0.025 | | 0.019 | 0.043 | 0.014 | | 0.097 | 0.137 | 0.003 | | 0.032 | 0.045 | 0.016 | | 0.061 | 0.103 | 0.026 | |
| 54 | 0.1 | 0.071 | 0.040 | 0.026 | | 0.104 | 0.050 | 0.040 | | 0.079 | 0.037 | 0.025 | | 0.105 | 0.030 | 0.051 | | 0.072 | 0.040 | 0.026 | | 0.109 | 0.047 | 0.041 | | 0.082 | 0.038 | 0.025 | | 0.105 | 0.029 | 0.050 | |
| 55 | 0.1 | 0.012 | 0.020 | 0.025 | | 0.046 | 0.029 | 0.077 | | 0.002 | 0.031 | 0.024 | | 0.020 | 0.015 | 0.078 | | 0.013 | 0.022 | 0.026 | | 0.050 | 0.028 | 0.077 | | 0.003 | 0.031 | 0.024 | | 0.019 | 0.034 | 0.078 | |
| 56 | 0.1 | 0.006 | 0.085 | 0.014 | | 0.048 | 0.242 | 0.117 | | 0.006 | 0.098 | 0.011 | | 0.041 | 0.253 | 0.112 | | 0.004 | 0.085 | 0.014 | | 0.054 | 0.242 | 0.118 | | 0.006 | 0.097 | 0.010 | | 0.057 | 0.289 | 0.113 | |
| 57 | 0.1 | 0.054 | 0.004 | 0.023 | | 0.023 | 0.006 | 0.007 | | 0.062 | 0.004 | 0.023 | | 0.041 | 0.028 | 0.001 | | 0.052 | 0.001 | 0.023 | | 0.026 | 0.006 | 0.006 | | 0.061 | 0.004 | 0.023 | | 0.044 | 0.028 | 0.001 | |
| 58 | 0.1 | 0.014 | 0.079 | 0.007 | | 0.052 | 0.002 | 0.044 | | 0.007 | 0.070 | 0.008 | | 0.047 | 0.067 | 0.047 | | 0.020 | 0.079 | 0.007 | | 0.051 | 0.001 | 0.043 | | 0.004 | 0.070 | 0.008 | | 0.054 | 0.006 | 0.047 | |
| 59 | 0.1 | 0.060 | 0.029 | 0.052 | | 0.005 | 0.004 | 0.024 | | 0.055 | 0.037 | 0.052 | | 0.032 | 0.019 | 0.020 | | 0.063 | 0.031 | 0.052 | | 0.010 | 0.001 | 0.024 | | 0.052 | 0.039 | 0.052 | | 0.030 | 0.018 | 0.020 | |
| 60 | 0.1 | 0.015 | 0.048 | 0.029 | | 0.092 | 0.049 | 0.097 | | 0.018 | 0.052 | 0.026 | | 0.067 | 0.024 | 0.085 | | 0.011 | 0.048 | 0.029 | | 0.092 | 0.047 | 0.096 | | 0.020 | 0.051 | 0.027 | | 0.079 | 0.024 | 0.085 | |
| 61 | 0.3 | 0.051 | 0.002 | 0.023 | 0.012 | 0.104 | 0.033 | 0.043 | 0.041 | 0.049 | 0.005 | 0.023 | 0.008 | 0.082 | 0.068 | 0.040 | 0.043 | 0.053 | 0.002 | 0.023 | 0.012 | 0.108 | 0.033 | 0.043 | 0.041 | 0.050 | 0.006 | 0.023 | 0.008 | 0.085 | 0.071 | 0.039 | 0.043 |
| 62 | 0.3 | 0.011 | 0.006 | 0.016 | 0.002 | 0.089 | 0.029 | 0.006 | 0.002 | 0.004 | 0.004 | 0.015 | 0.002 | 0.088 | 0.038 | 0.009 | 0.003 | 0.012 | 0.006 | 0.016 | 0.002 | 0.092 | 0.030 | 0.007 | 0.002 | 0.004 | 0.004 | 0.015 | 0.002 | 0.086 | 0.039 | 0.010 | 0.003 |
| 63 | 0.3 | 0.011 | 0.020 | 0.015 | 0.001 | 0.108 | 0.077 | 0.066 | 0.013 | 0.010 | 0.020 | 0.014 | 0.003 | 0.107 | 0.081 | 0.057 | 0.018 | 0.012 | 0.020 | 0.015 | 0.002 | 0.110 | 0.076 | 0.066 | 0.014 | 0.010 | 0.020 | 0.014 | 0.003 | 0.107 | 0.081 | 0.057 | 0.018 |
| 64 | 0.3 | 0.035 | 0.006 | 0.008 | 0.014 | 0.042 | 0.043 | 0.002 | 0.007 | 0.036 | 0.000 | 0.005 | 0.014 | 0.007 | 0.039 | 0.009 | 0.012 | 0.035 | 0.006 | 0.008 | 0.014 | 0.047 | 0.041 | 0.002 | 0.008 | 0.036 | 0.000 | 0.005 | 0.014 | 0.015 | 0.038 | 0.009 | 0.013 |
| 65 | 0.1 | 0.136 | 0.074 | 0.020 | | 0.073 | 0.131 | 0.089 | | 0.155 | 0.061 | 0.021 | | 0.205 | 0.101 | 0.103 | | 0.136 | 0.078 | 0.019 | | 0.064 | 0.130 | 0.086 | | 0.153 | 0.062 | 0.020 | | 0.175 | 0.103 | 0.103 | |
| 66 | 0.1 | 0.043 | 0.194 | 0.027 | | 0.151 | 0.164 | 0.062 | | 0.051 | 0.176 | 0.018 | | 0.111 | 0.153 | 0.038 | | 0.055 | 0.194 | 0.026 | | 0.140 | 0.159 | 0.061 | | 0.057 | 0.174 | 0.019 | | 0.098 | 0.149 | 0.036 | |
| 67 | 0.1 | 0.283 | 0.020 | 0.053 | | 0.076 | 0.103 | 0.041 | | 0.290 | 0.055 | 0.049 | | 0.041 | 0.059 | 0.020 | | 0.287 | 0.016 | 0.054 | | 0.071 | 0.097 | 0.039 | | 0.300 | 0.057 | 0.051 | | 0.038 | 0.063 | 0.021 | |
| 68 | 0.1 | 0.166 | 0.002 | 0.004 | | 0.288 | 0.028 | 0.154 | | 0.189 | 0.044 | 0.015 | | 0.303 | 0.085 | 0.200 | | 0.167 | 0.001 | 0.004 | | 0.298 | 0.029 | 0.152 | | 0.206 | 0.041 | 0.014 | | 0.310 | 0.078 | 0.199 | |
| 69 | 0.1 | 0.012 | 0.091 | 0.022 | | 0.063 | 0.045 | 0.000 | | 0.010 | 0.097 | 0.023 | | 0.047 | 0.041 | 0.004 | | 0.007 | 0.096 | 0.021 | | 0.054 | 0.045 | 0.001 | | 0.016 | 0.097 | 0.023 | | 0.038 | 0.039 | 0.004 | |
| 70 | 0.1 | 0.043 | 0.131 | 0.025 | | 0.081 | 0.037 | 0.030 | | 0.090 | 0.100 | 0.042 | | 0.083 | 0.059 | 0.019 | | 0.041 | 0.134 | 0.027 | | 0.080 | 0.035 | 0.031 | | 0.089 | 0.095 | 0.043 | | 0.083 | 0.059 | 0.018 | |
| 71 | 0.1 | 0.096 | 0.134 | 0.103 | | 0.164 | 0.157 | 0.005 | | 0.038 | 0.129 | 0.102 | | 0.195 | 0.135 | 0.014 | | 0.100 | 0.129 | 0.102 | | 0.170 | 0.157 | 0.005 | | 0.043 | 0.126 | 0.102 | | 0.192 | 0.130 | 0.012 | |
| 72 | 0.1 | 0.015 | 0.248 | 0.006 | | 0.196 | 0.058 | 0.008 | | 0.019 | 0.263 | 0.012 | | 0.241 | 0.038 | 0.036 | | 0.012 | 0.250 | 0.006 | | 0.195 | 0.049 | 0.006 | | 0.013 | 0.261 | 0.012 | | 0.243 | 0.034 | 0.033 | |
| 73 | 0.1 | 0.065 | 0.025 | 0.022 | | 0.186 | 0.110 | 0.301 | | 0.060 | 0.028 | 0.021 | | 0.135 | 0.106 | 0.262 | | 0.069 | 0.026 | 0.022 | | 0.203 | 0.118 | 0.301 | | 0.069 | 0.027 | 0.020 | | 0.128 | 0.102 | 0.261 | |
| 74 | 0.1 | 0.023 | 0.078 | 0.057 | | 0.389 | 0.038 | 0.049 | | 0.044 | 0.071 | 0.054 | | 0.304 | 0.096 | 0.021 | | 0.022 | 0.080 | 0.057 | | 0.398 | 0.048 | 0.049 | | 0.048 | 0.070 | 0.055 | | 0.276 | 0.090 | 0.020 | |
| 75 | 0.1 | 0.032 | 0.013 | 0.003 | | 0.186 | 0.049 | 0.055 | | 0.032 | 0.011 | 0.008 | | 0.190 | 0.040 | 0.065 | | 0.032 | 0.013 | 0.002 | | 0.185 | 0.051 | 0.055 | | 0.029 | 0.010 | 0.007 | | 0.187 | 0.040 | 0.063 | |

**Table 29. Average absolute relative bias values for Level-3 parameters based on the re-sampled sample sizes for conditions 76 - 150.**

| | | Level-3 Parameter Absolute Relative Bias | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Effect Size | $\gamma_{000}$ | | | | $\gamma_{001}$ | | | | $\gamma_{010}$ | | | | $\gamma_{011}$ | | | | $\gamma_{100}$ | | | | $\gamma_{101}$ | | | | $\gamma_{110}$ | | | | $\gamma_{111}$ | | | |
| 76 | 0.1 | 0.028 | 0.090 | 0.001 | | 0.011 | 0.111 | 0.099 | | 0.033 | 0.092 | 0.000 | | 0.025 | 0.112 | 0.109 | | 0.026 | 0.089 | 0.001 | | 0.024 | 0.104 | 0.098 | | 0.035 | 0.093 | 0.000 | | 0.031 | 0.120 | 0.109 | |
| 77 | 0.1 | 0.005 | 0.023 | 0.007 | | 0.012 | 0.055 | 0.076 | | 0.014 | 0.027 | 0.007 | | 0.045 | 0.070 | 0.062 | | 0.007 | 0.024 | 0.007 | | 0.012 | 0.053 | 0.077 | | 0.012 | 0.027 | 0.009 | | 0.038 | 0.068 | 0.063 | |
| 78 | 0.1 | 0.036 | 0.028 | 0.011 | | 0.004 | 0.043 | 0.010 | | 0.026 | 0.036 | 0.006 | | 0.029 | 0.067 | 0.008 | | 0.036 | 0.026 | 0.011 | | 0.001 | 0.045 | 0.011 | | 0.026 | 0.034 | 0.008 | | 0.028 | 0.025 | 0.008 | |
| 79 | 0.1 | 0.036 | 0.015 | 0.013 | | 0.243 | 0.091 | 0.011 | | 0.041 | 0.029 | 0.014 | | 0.254 | 0.129 | 0.017 | | 0.034 | 0.014 | 0.014 | | 0.243 | 0.090 | 0.011 | | 0.042 | 0.030 | 0.014 | | 0.257 | 0.131 | 0.018 | |
| 80 | 0.1 | 0.047 | 0.044 | 0.003 | | 0.002 | 0.192 | 0.002 | | 0.079 | 0.023 | 0.006 | | 0.004 | 0.199 | 0.006 | | 0.044 | 0.044 | 0.003 | | 0.012 | 0.195 | 0.002 | | 0.078 | 0.027 | 0.006 | | 0.007 | 0.198 | 0.007 | |
| 81 | 0.3 | 0.003 | 0.005 | 0.028 | 0.015 | 0.160 | 0.141 | 0.056 | 0.032 | 0.023 | 0.005 | 0.023 | 0.016 | 0.120 | 0.153 | 0.052 | 0.034 | 0.001 | 0.006 | 0.029 | 0.015 | 0.151 | 0.146 | 0.054 | 0.031 | 0.022 | 0.005 | 0.022 | 0.016 | 0.116 | 0.150 | 0.054 | 0.034 |
| 82 | 0.3 | 0.052 | 0.008 | 0.045 | 0.010 | 0.022 | 0.071 | 0.050 | 0.090 | 0.003 | 0.007 | 0.045 | 0.009 | 0.040 | 0.089 | 0.057 | 0.080 | 0.054 | 0.009 | 0.044 | 0.010 | 0.016 | 0.074 | 0.052 | 0.090 | 0.003 | 0.005 | 0.045 | 0.010 | 0.041 | 0.091 | 0.057 | 0.080 |
| 83 | 0.3 | 0.020 | 0.046 | 0.005 | 0.000 | 0.113 | 0.066 | 0.037 | 0.034 | 0.003 | 0.049 | 0.002 | 0.002 | 0.070 | 0.041 | 0.033 | 0.031 | 0.019 | 0.045 | 0.004 | 0.000 | 0.117 | 0.068 | 0.037 | 0.034 | 0.003 | 0.048 | 0.002 | 0.002 | 0.067 | 0.061 | 0.033 | 0.031 |
| 84 | 0.3 | 0.027 | 0.027 | 0.018 | 0.008 | 0.039 | 0.031 | 0.177 | 0.059 | 0.030 | 0.042 | 0.019 | 0.009 | 0.027 | 0.016 | 0.167 | 0.062 | 0.026 | 0.028 | 0.019 | 0.009 | 0.047 | 0.035 | 0.178 | 0.060 | 0.028 | 0.042 | 0.019 | 0.009 | 0.017 | 0.018 | 0.171 | 0.062 |
| 85 | 0.3 | 0.027 | 0.038 | 0.004 | 0.007 | 0.093 | 0.024 | 0.005 | 0.011 | 0.007 | 0.031 | 0.002 | 0.007 | 0.069 | 0.011 | 0.005 | 0.008 | 0.028 | 0.038 | 0.004 | 0.007 | 0.093 | 0.025 | 0.004 | 0.010 | 0.009 | 0.031 | 0.001 | 0.007 | 0.079 | 0.030 | 0.005 | 0.008 |
| 86 | 0.3 | 0.020 | 0.000 | 0.010 | 0.004 | 0.003 | 0.034 | 0.050 | 0.002 | 0.030 | 0.011 | 0.012 | 0.005 | 0.001 | 0.079 | 0.050 | 0.001 | 0.021 | 0.000 | 0.009 | 0.004 | 0.008 | 0.038 | 0.049 | 0.002 | 0.030 | 0.011 | 0.012 | 0.005 | 0.001 | 0.079 | 0.050 | 0.001 |
| 87 | 0.3 | 0.049 | 0.011 | 0.024 | 0.006 | 0.049 | 0.009 | 0.003 | 0.003 | 0.041 | 0.006 | 0.025 | 0.004 | 0.035 | 0.007 | 0.000 | 0.001 | 0.048 | 0.011 | 0.024 | 0.006 | 0.053 | 0.009 | 0.003 | 0.003 | 0.041 | 0.004 | 0.025 | 0.004 | 0.033 | 0.007 | 0.000 | 0.001 |
| 88 | 0.3 | 0.005 | 0.010 | 0.003 | 0.005 | 0.067 | 0.018 | 0.025 | 0.024 | 0.001 | 0.007 | 0.002 | 0.006 | 0.055 | 0.009 | 0.030 | 0.023 | 0.006 | 0.011 | 0.003 | 0.005 | 0.065 | 0.018 | 0.025 | 0.024 | 0.001 | 0.006 | 0.002 | 0.006 | 0.049 | 0.009 | 0.031 | 0.023 |
| 89 | 0.3 | 0.025 | 0.016 | 0.010 | 0.004 | 0.034 | 0.002 | 0.006 | 0.006 | 0.019 | 0.021 | 0.011 | 0.003 | 0.038 | 0.003 | 0.009 | 0.006 | 0.027 | 0.016 | 0.010 | 0.004 | 0.034 | 0.004 | 0.006 | 0.006 | 0.017 | 0.020 | 0.011 | 0.003 | 0.039 | 0.004 | 0.009 | 0.006 |
| 90 | 0.3 | 0.015 | 0.017 | 0.001 | 0.005 | 0.007 | 0.024 | 0.013 | 0.016 | 0.002 | 0.009 | 0.000 | 0.006 | 0.017 | 0.024 | 0.015 | 0.016 | 0.015 | 0.017 | 0.001 | 0.004 | 0.007 | 0.025 | 0.012 | 0.016 | 0.002 | 0.009 | 0.000 | 0.006 | 0.016 | 0.024 | 0.015 | 0.016 |
| 91 | 0.3 | 0.015 | 0.013 | 0.002 | 0.005 | 0.006 | 0.041 | 0.004 | 0.002 | 0.002 | 0.011 | 0.004 | 0.005 | 0.000 | 0.035 | 0.007 | 0.003 | 0.015 | 0.013 | 0.003 | 0.005 | 0.002 | 0.040 | 0.004 | 0.002 | 0.000 | 0.012 | 0.004 | 0.005 | 0.000 | 0.036 | 0.007 | 0.003 |
| 92 | 0.7 | 0.010 | 0.011 | 0.004 | 0.006 | 0.017 | 0.012 | 0.010 | 0.007 | 0.013 | 0.012 | 0.002 | 0.007 | 0.031 | 0.008 | 0.009 | 0.005 | 0.010 | 0.011 | 0.004 | 0.006 | 0.017 | 0.013 | 0.010 | 0.007 | 0.013 | 0.012 | 0.002 | 0.007 | 0.033 | 0.008 | 0.009 | 0.005 |
| 93 | 0.1 | 0.081 | 0.060 | 0.022 | | 0.377 | 0.404 | 0.298 | | 0.115 | 0.060 | 0.024 | | 0.270 | 0.411 | 0.332 | | 0.073 | 0.057 | 0.019 | | 0.363 | 0.397 | 0.294 | | 0.099 | 0.057 | 0.023 | | 0.278 | 0.477 | 0.337 | |
| 94 | 0.1 | 0.029 | 0.202 | 0.041 | | 0.309 | 0.013 | 0.133 | | 0.031 | 0.218 | 0.026 | | 0.343 | 0.015 | 0.104 | | 0.024 | 0.198 | 0.041 | | 0.336 | 0.016 | 0.133 | | 0.032 | 0.222 | 0.022 | | 0.379 | 0.010 | 0.103 | |
| 95 | 0.1 | 0.292 | 0.105 | 0.043 | | 0.110 | 0.041 | 0.006 | | 0.335 | 0.114 | 0.049 | | 0.045 | 0.018 | 0.016 | | 0.288 | 0.103 | 0.044 | | 0.125 | 0.044 | 0.004 | | 0.343 | 0.120 | 0.047 | | 0.039 | 0.020 | 0.014 | |
| 96 | 0.1 | 0.065 | 0.087 | 0.028 | | 0.080 | 0.334 | 0.685 | | 0.082 | 0.127 | 0.031 | | 0.199 | 0.312 | 0.645 | | 0.071 | 0.087 | 0.029 | | 0.034 | 0.326 | 0.681 | | 0.084 | 0.128 | 0.032 | | 0.148 | 0.322 | 0.642 | |
| 97 | 0.1 | 0.121 | 0.028 | 0.047 | | 0.183 | 0.069 | 0.046 | | 0.127 | 0.051 | 0.041 | | 0.278 | 0.068 | 0.048 | | 0.116 | 0.026 | 0.046 | | 0.188 | 0.071 | 0.045 | | 0.135 | 0.051 | 0.042 | | 0.282 | 0.097 | 0.047 | |
| 98 | 0.1 | 0.273 | 0.044 | 0.049 | | 0.037 | 0.012 | 0.130 | | 0.310 | 0.052 | 0.040 | | 0.017 | 0.055 | 0.131 | | 0.274 | 0.046 | 0.049 | | 0.032 | 0.013 | 0.129 | | 0.314 | 0.053 | 0.040 | | 0.023 | 0.048 | 0.131 | |
| 99 | 0.1 | 0.209 | 0.126 | 0.196 | | 0.067 | 0.220 | 0.021 | | 0.284 | 0.147 | 0.195 | | 0.105 | 0.217 | 0.024 | | 0.216 | 0.125 | 0.197 | | 0.076 | 0.221 | 0.023 | | 0.280 | 0.146 | 0.196 | | 0.098 | 0.210 | 0.021 | |
| 100 | 0.1 | 0.118 | 0.041 | 0.057 | | 0.109 | 0.061 | 0.017 | | 0.126 | 0.006 | 0.067 | | 0.086 | 0.013 | 0.006 | | 0.104 | 0.040 | 0.055 | | 0.096 | 0.064 | 0.017 | | 0.128 | 0.006 | 0.071 | | 0.093 | 0.008 | 0.008 | |
| 101 | 0.1 | 0.028 | 0.100 | 0.016 | | 0.228 | 0.013 | 0.123 | | 0.028 | 0.093 | 0.008 | | 0.249 | 0.065 | 0.100 | | 0.024 | 0.099 | 0.015 | | 0.230 | 0.006 | 0.124 | | 0.029 | 0.091 | 0.007 | | 0.236 | 0.007 | 0.101 | |
| 102 | 0.1 | 0.038 | 0.026 | 0.006 | | 0.219 | 0.159 | 0.020 | | 0.017 | 0.028 | 0.012 | | 0.200 | 0.219 | 0.014 | | 0.044 | 0.028 | 0.006 | | 0.194 | 0.162 | 0.022 | | 0.019 | 0.025 | 0.011 | | 0.181 | 0.213 | 0.016 | |
| 103 | 0.1 | 0.002 | 0.014 | 0.074 | | 0.017 | 0.043 | 0.004 | | 0.035 | 0.013 | 0.082 | | 0.032 | 0.036 | 0.009 | | 0.003 | 0.013 | 0.075 | | 0.017 | 0.044 | 0.004 | | 0.033 | 0.013 | 0.082 | | 0.021 | 0.037 | 0.009 | |
| 104 | 0.1 | 0.029 | 0.028 | 0.017 | | 0.609 | 0.133 | 0.106 | | 0.008 | 0.030 | 0.018 | | 0.604 | 0.067 | 0.122 | | 0.030 | 0.029 | 0.017 | | 0.626 | 0.137 | 0.110 | | 0.012 | 0.032 | 0.020 | | 0.587 | 0.100 | 0.125 | |
| 105 | 0.1 | 0.116 | 0.024 | 0.028 | | 0.048 | 0.008 | 0.076 | | 0.092 | 0.007 | 0.037 | | 0.042 | 0.019 | 0.098 | | 0.116 | 0.023 | 0.027 | | 0.050 | 0.010 | 0.076 | | 0.100 | 0.008 | 0.038 | | 0.035 | 0.017 | 0.099 | |
| 106 | 0.1 | 0.053 | 0.047 | 0.017 | | 0.052 | 0.103 | 0.020 | | 0.052 | 0.024 | 0.014 | | 0.043 | 0.069 | 0.015 | | 0.058 | 0.047 | 0.016 | | 0.056 | 0.104 | 0.019 | | 0.049 | 0.024 | 0.013 | | 0.055 | 0.096 | 0.015 | |
| 107 | 0.1 | 0.057 | 0.017 | 0.037 | | 0.002 | 0.053 | 0.018 | | 0.056 | 0.003 | 0.036 | | 0.023 | 0.042 | 0.011 | | 0.055 | 0.016 | 0.037 | | 0.001 | 0.056 | 0.018 | | 0.056 | 0.004 | 0.036 | | 0.020 | 0.045 | 0.011 | |
| 108 | 0.1 | 0.057 | 0.048 | 0.055 | | 0.252 | 0.116 | 0.011 | | 0.063 | 0.049 | 0.059 | | 0.234 | 0.112 | 0.004 | | 0.054 | 0.047 | 0.055 | | 0.251 | 0.114 | 0.011 | | 0.070 | 0.048 | 0.058 | | 0.233 | 0.127 | 0.004 | |
| 109 | 0.3 | 0.038 | 0.027 | 0.020 | 0.016 | 0.002 | 0.009 | 0.025 | 0.157 | 0.024 | 0.033 | 0.022 | 0.014 | 0.005 | 0.011 | 0.035 | 0.174 | 0.035 | 0.027 | 0.021 | 0.016 | 0.001 | 0.010 | 0.027 | 0.158 | 0.028 | 0.033 | 0.022 | 0.014 | 0.001 | 0.030 | 0.033 | 0.174 |
| 110 | 0.3 | 0.038 | 0.019 | 0.024 | 0.035 | 0.084 | 0.095 | 0.025 | 0.014 | 0.039 | 0.017 | 0.019 | 0.033 | 0.064 | 0.168 | 0.032 | 0.007 | 0.037 | 0.018 | 0.024 | 0.035 | 0.077 | 0.093 | 0.025 | 0.014 | 0.038 | 0.018 | 0.019 | 0.033 | 0.053 | 0.114 | 0.033 | 0.007 |
| 111 | 0.3 | 0.023 | 0.003 | 0.015 | 0.010 | 0.053 | 0.081 | 0.025 | 0.008 | 0.022 | 0.002 | 0.015 | 0.010 | 0.068 | 0.079 | 0.027 | 0.008 | 0.024 | 0.003 | 0.015 | 0.010 | 0.057 | 0.082 | 0.025 | 0.008 | 0.024 | 0.002 | 0.015 | 0.010 | 0.063 | 0.080 | 0.026 | 0.008 |
| 112 | 0.3 | 0.000 | 0.018 | 0.002 | 0.002 | 0.082 | 0.055 | 0.114 | 0.026 | 0.008 | 0.018 | 0.004 | 0.002 | 0.063 | 0.046 | 0.110 | 0.022 | 0.000 | 0.018 | 0.002 | 0.002 | 0.081 | 0.055 | 0.114 | 0.026 | 0.008 | 0.018 | 0.003 | 0.002 | 0.063 | 0.045 | 0.111 | 0.022 |
| 113 | 0.3 | 0.017 | 0.028 | 0.018 | 0.012 | 0.020 | 0.018 | 0.004 | 0.002 | 0.021 | 0.025 | 0.018 | 0.010 | 0.024 | 0.025 | 0.007 | 0.001 | 0.018 | 0.028 | 0.018 | 0.011 | 0.019 | 0.018 | 0.005 | 0.002 | 0.020 | 0.024 | 0.018 | 0.010 | 0.027 | 0.024 | 0.008 | 0.001 |
| 114 | 0.3 | 0.027 | 0.031 | 0.008 | 0.011 | 0.053 | 0.065 | 0.020 | 0.023 | 0.042 | 0.032 | 0.010 | 0.011 | 0.050 | 0.055 | 0.016 | 0.023 | 0.028 | 0.031 | 0.009 | 0.011 | 0.060 | 0.067 | 0.020 | 0.022 | 0.040 | 0.032 | 0.010 | 0.011 | 0.056 | 0.056 | 0.015 | 0.023 |
| 115 | 0.1 | 0.070 | 0.025 | 0.005 | | 0.588 | 0.067 | 0.139 | | 0.058 | 0.036 | 0.008 | | 0.739 | 0.013 | 0.151 | | 0.067 | 0.028 | 0.004 | | 0.581 | 0.075 | 0.138 | | 0.057 | 0.033 | 0.009 | | 0.722 | 0.089 | 0.154 | |
| 116 | 0.1 | 0.032 | 0.145 | 0.174 | | 0.143 | 0.099 | 0.025 | | 0.058 | 0.137 | 0.172 | | 0.161 | 0.045 | 0.004 | | 0.039 | 0.142 | 0.178 | | 0.132 | 0.083 | 0.021 | | 0.060 | 0.142 | 0.173 | | 0.131 | 0.048 | 0.007 | |
| 117 | 0.1 | 0.126 | 0.054 | 0.122 | | 0.220 | 0.230 | 0.103 | | 0.120 | 0.055 | 0.110 | | 0.266 | 0.158 | 0.111 | | 0.117 | 0.055 | 0.122 | | 0.212 | 0.225 | 0.103 | | 0.132 | 0.052 | 0.112 | | 0.280 | 0.194 | 0.110 | |
| 118 | 0.1 | 0.026 | 0.074 | 0.057 | | 0.405 | 0.017 | 0.039 | | 0.087 | 0.100 | 0.053 | | 0.315 | 0.074 | 0.050 | | 0.026 | 0.078 | 0.055 | | 0.414 | 0.020 | 0.040 | | 0.102 | 0.101 | 0.053 | | 0.292 | 0.050 | 0.047 | |
| 119 | 0.1 | 0.096 | 0.097 | 0.026 | | 0.279 | 0.061 | 0.068 | | 0.100 | 0.098 | 0.036 | | 0.287 | 0.089 | 0.050 | | 0.087 | 0.090 | 0.026 | | 0.277 | 0.069 | 0.067 | | 0.102 | 0.103 | 0.034 | | 0.269 | 0.084 | 0.052 | |
| 120 | 0.1 | 0.065 | 0.025 | 0.057 | | 0.226 | 0.095 | 0.107 | | 0.128 | 0.008 | 0.048 | | 0.187 | 0.146 | 0.099 | | 0.085 | 0.021 | 0.058 | | 0.221 | 0.096 | 0.107 | | 0.122 | 0.007 | 0.048 | | 0.198 | 0.146 | 0.098 | |
| 121 | 0.1 | 0.143 | 0.144 | 0.096 | | 0.018 | 0.052 | 0.087 | | 0.080 | 0.144 | 0.112 | | 0.027 | 0.063 | 0.064 | | 0.143 | 0.150 | 0.097 | | 0.012 | 0.053 | 0.087 | | 0.085 | 0.138 | 0.111 | | 0.025 | 0.085 | 0.065 | |
| 122 | 0.1 | 0.023 | 0.083 | 0.007 | | 0.047 | 0.079 | 0.037 | | 0.027 | 0.067 | 0.002 | | 0.066 | 0.054 | 0.059 | | 0.022 | 0.083 | 0.006 | | 0.046 | 0.080 | 0.035 | | 0.036 | 0.068 | 0.003 | | 0.064 | 0.054 | 0.061 | |
| 123 | 0.1 | 0.050 | 0.055 | 0.014 | | 0.285 | 0.017 | 0.111 | | 0.059 | 0.064 | 0.018 | | 0.231 | 0.069 | 0.110 | | 0.048 | 0.054 | 0.014 | | 0.278 | 0.015 | 0.111 | | 0.067 | 0.062 | 0.019 | | 0.236 | 0.011 | 0.109 | |
| 124 | 0.1 | 0.008 | 0.087 | 0.001 | | 0.248 | 0.180 | 0.116 | | 0.029 | 0.085 | 0.002 | | 0.271 | 0.155 | 0.084 | | 0.008 | 0.086 | 0.002 | | 0.270 | 0.180 | 0.116 | | 0.029 | 0.084 | 0.002 | | 0.269 | 0.147 | 0.086 | |
| 125 | 0.1 | 0.005 | 0.086 | 0.036 | | 0.017 | 0.036 | 0.016 | | 0.017 | 0.079 | 0.026 | | 0.008 | 0.046 | 0.021 | | 0.004 | 0.084 | 0.037 | | 0.020 | 0.032 | 0.015 | | 0.014 | 0.078 | 0.026 | | 0.010 | 0.049 | 0.020 | |
| 126 | 0.1 | 0.010 | 0.020 | 0.042 | | 0.023 | 0.045 | 0.073 | | 0.022 | 0.025 | 0.038 | | 0.001 | 0.068 | 0.094 | | 0.004 | 0.021 | 0.042 | | 0.026 | 0.033 | 0.075 | | 0.026 | 0.027 | 0.038 | | 0.003 | 0.103 | 0.097 | |
| 127 | 0.1 | 0.030 | 0.034 | 0.001 | | 0.062 | 0.015 | 0.079 | | 0.014 | 0.038 | 0.006 | | 0.036 | 0.019 | 0.083 | | 0.028 | 0.032 | 0.002 | | 0.056 | 0.013 | 0.078 | | 0.012 | 0.037 | 0.006 | | 0.044 | 0.021 | 0.083 | |
| 128 | 0.1 | 0.027 | 0.033 | 0.043 | | 0.077 | 0.018 | 0.064 | | 0.008 | 0.037 | 0.042 | | 0.081 | 0.067 | 0.069 | | 0.024 | 0.035 | 0.044 | | 0.071 | 0.019 | 0.063 | | 0.005 | 0.037 | 0.042 | | 0.086 | 0.009 | 0.069 | |
| 129 | 0.1 | 0.048 | 0.024 | 0.022 | | 0.116 | 0.054 | 0.038 | | 0.043 | 0.025 | 0.015 | | 0.096 | 0.049 | 0.040 | | 0.048 | 0.024 | 0.023 | | 0.122 | 0.052 | 0.039 | | 0.050 | 0.026 | 0.015 | | 0.093 | 0.050 | 0.042 | |
| 130 | 0.1 | 0.003 | 0.005 | 0.021 | | 0.114 | 0.142 | 0.027 | | 0.000 | 0.013 | 0.014 | | 0.050 | 0.152 | 0.023 | | 0.001 | 0.004 | 0.022 | | 0.126 | 0.143 | 0.027 | | 0.004 | 0.012 | 0.015 | | 0.058 | 0.151 | 0.024 | |
| 131 | 0.3 | 0.008 | 0.039 | 0.004 | 0.000 | 0.030 | 0.169 | 0.381 | 0.036 | 0.007 | 0.034 | 0.003 | 0.004 | 0.072 | 0.189 | 0.378 | 0.034 | 0.009 | 0.039 | 0.004 | 0.000 | 0.029 | 0.166 | 0.366 | 0.036 | 0.003 | 0.033 | 0.003 | 0.004 | 0.072 | 0.187 | 0.377 | 0.034 |
| 132 | 0.3 | 0.117 | 0.031 | 0.025 | 0.023 | 0.097 | 0.077 | 0.013 | 0.044 | 0.093 | 0.033 | 0.020 | 0.020 | 0.115 | 0.067 | 0.005 | 0.052 | 0.120 | 0.033 | 0.025 | 0.023 | 0.100 | 0.080 | 0.016 | 0.043 | 0.091 | 0.034 | 0.020 | 0.020 | 0.110 | 0.098 | 0.005 | 0.051 |
| 133 | 0.3 | 0.076 | 0.043 | 0.037 | 0.008 | 0.174 | 0.339 | 0.008 | 0.032 | 0.060 | 0.048 | 0.034 | 0.008 | 0.156 | 0.358 | 0.001 | 0.031 | 0.080 | 0.042 | 0.037 | 0.008 | 0.167 | 0.340 | 0.008 | 0.031 | 0.063 | 0.048 | 0.033 | 0.009 | 0.153 | 0.367 | 0.002 | 0.031 |
| 134 | 0.3 | 0.002 | 0.015 | 0.013 | 0.009 | 0.008 | 0.051 | 0.004 | 0.005 | 0.001 | 0.015 | 0.013 | 0.008 | 0.006 | 0.058 | 0.002 | 0.003 | 0.001 | 0.016 | 0.013 | 0.009 | 0.011 | 0.052 | 0.004 | 0.005 | 0.001 | 0.016 | 0.013 | 0.008 | 0.001 | 0.057 | 0.002 | 0.002 |
| 135 | 0.3 | *0.014* | *0.015* | *0.005* | *0.009* | *0.088* | *0.040* | *0.195* | *0.038* | *0.018* | *0.014* | *0.007* | *0.008* | *0.126* | *0.049* | *0.286* | *0.039* | 0.013 | 0.015 | 0.005 | 0.009 | 0.087 | 0.036 | 0.212 | 0.038 | *0.019* | *0.013* | *0.007* | *0.007* | *0.115* | *0.047* | 0.282 | 0.039 |
| 136 | 0.3 | 0.013 | 0.017 | 0.003 | 0.000 | 0.036 | 0.017 | 0.017 | 0.016 | 0.021 | 0.017 | 0.002 | 0.001 | 0.035 | 0.016 | 0.013 | 0.015 | 0.013 | 0.018 | 0.003 | 0.000 | 0.038 | 0.018 | 0.017 | 0.016 | 0.020 | 0.016 | 0.002 | 0.001 | 0.035 | 0.014 | 0.013 | 0.015 |
| 137 | 0.3 | 0.001 | 0.029 | 0.000 | 0.003 | 0.071 | 0.015 | 0.059 | 0.022 | 0.002 | 0.024 | 0.004 | 0.002 | 0.071 | 0.006 | 0.067 | 0.025 | 0.001 | 0.028 | 0.000 | 0.003 | 0.070 | 0.016 | 0.059 | 0.022 | 0.001 | 0.023 | 0.005 | 0.003 | 0.077 | 0.003 | 0.067 | 0.025 |
| 138 | 0.3 | 0.007 | 0.001 | 0.005 | 0.004 | 0.022 | 0.019 | 0.018 | 0.010 | 0.009 | 0.004 | 0.003 | 0.004 | 0.026 | 0.016 | 0.015 | 0.009 | 0.007 | 0.000 | 0.005 | 0.004 | 0.024 | 0.019 | 0.018 | 0.010 | 0.008 | 0.004 | 0.003 | 0.004 | 0.024 | 0.017 | 0.015 | 0.009 |
| 139 | 0.1 | 0.067 | 0.003 | 0.088 | | 0.286 | 0.686 | 0.405 | | 0.030 | 0.009 | 0.040 | | 0.234 | 0.772 | 0.582 | | 0.077 | 0.005 | 0.088 | | 0.247 | 0.706 | 0.400 | | 0.024 | 0.012 | 0.041 | | 0.291 | 0.794 | 0.586 | |
| 140 | 0.1 | 0.037 | 0.035 | 0.034 | | 0.220 | 0.081 | 0.169 | | 0.057 | 0.034 | 0.026 | | 0.051 | 0.155 | 0.147 | | 0.042 | 0.037 | 0.032 | | 0.223 | 0.097 | 0.167 | | 0.055 | 0.032 | 0.028 | | 0.002 | 0.137 | 0.144 | |
| 141 | 0.1 | 0.006 | 0.042 | 0.091 | | 0.408 | 0.231 | 0.027 | | 0.025 | 0.050 | 0.085 | | 0.422 | 0.189 | 0.020 | | 0.009 | 0.044 | 0.092 | | 0.399 | 0.227 | 0.027 | | 0.021 | 0.050 | 0.085 | | 0.419 | 0.183 | 0.015 | |
| 142 | 0.1 | 0.005 | 0.085 | 0.040 | | 0.437 | 0.669 | 0.226 | | 0.022 | 0.140 | 0.023 | | 0.765 | 0.484 | 0.301 | | 0.004 | 0.087 | 0.042 | | 0.472 | 0.669 | 0.231 | | 0.019 | 0.138 | 0.019 | | 0.665 | 0.515 | 0.298 | |
| 143 | 0.1 | 0.089 | 0.012 | 0.034 | | 0.123 | 0.237 | 0.041 | | 0.009 | 0.039 | 0.061 | | 0.146 | 0.196 | 0.008 | | 0.079 | 0.013 | 0.034 | | 0.120 | 0.234 | 0.040 | | 0.004 | 0.039 | 0.061 | | 0.121 | 0.208 | 0.003 | |
| 144 | 0.1 | 0.008 | 0.168 | 0.068 | | 0.034 | 0.131 | 0.049 | | 0.008 | 0.109 | 0.081 | | 0.021 | 0.171 | 0.055 | | 0.002 | 0.163 | 0.068 | | 0.033 | 0.132 | 0.051 | | 0.017 | 0.103 | 0.083 | | 0.021 | 0.170 | 0.057 | |
| 145 | 0.1 | 0.144 | 0.093 | 0.113 | | 0.066 | 0.062 | 0.170 | | 0.179 | 0.081 | 0.088 | | 0.071 | 0.099 | 0.176 | | 0.137 | 0.094 | 0.113 | | 0.065 | 0.061 | 0.171 | | 0.178 | 0.077 | 0.090 | | 0.080 | 0.107 | 0.177 | |
| 146 | 0.1 | 0.021 | 0.021 | 0.022 | | 0.449 | 0.053 | 0.022 | | 0.013 | 0.010 | 0.015 | | 0.583 | 0.038 | 0.004 | | 0.014 | 0.023 | 0.023 | | 0.446 | 0.054 | 0.021 | | 0.011 | 0.006 | 0.015 | | 0.598 | 0.046 | 0.004 | |
| 147 | 0.1 | 0.079 | 0.064 | 0.022 | | 0.311 | 0.610 | 0.221 | | 0.120 | 0.072 | 0.027 | | 0.247 | 0.426 | 0.244 | | 0.081 | 0.063 | 0.023 | | 0.303 | 0.616 | 0.223 | | 0.125 | 0.073 | 0.027 | | 0.278 | 0.404 | 0.246 | |
| 148 | 0.1 | 0.001 | 0.026 | 0.032 | | 0.334 | 0.135 | 0.248 | | 0.023 | 0.040 | 0.028 | | 0.425 | 0.086 | 0.251 | | 0.002 | 0.026 | 0.033 | | 0.319 | 0.131 | 0.242 | | 0.021 | 0.037 | 0.028 | | 0.352 | 0.090 | 0.251 | |
| 149 | 0.1 | 0.115 | 0.014 | 0.036 | | 0.109 | 0.007 | 0.046 | | 0.094 | 0.001 | 0.029 | | 0.050 | 0.019 | 0.031 | | 0.117 | 0.013 | 0.035 | | 0.104 | 0.007 | 0.045 | | 0.095 | 0.000 | 0.028 | | 0.048 | 0.014 | 0.031 | |
| 150 | 0.1 | 0.095 | 0.008 | 0.021 | | 0.146 | 0.241 | 0.248 | | 0.038 | 0.014 | 0.006 | | 0.174 | 0.139 | 0.252 | | 0.088 | 0.008 | 0.022 | | 0.176 | 0.247 | 0.249 | | 0.035 | 0.013 | 0.007 | | 0.151 | 0.146 | 0.252 | |

**Table 30. Average absolute relative bias values for Level-3 parameters based on the re-sampled sample sizes for conditions 151 - 236.**

| | | Level-3 Parameter Absolute Relative Bias | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Effect Size | $\gamma_{000}$ | | | | $\gamma_{001}$ | | | | $\gamma_{010}$ | | | | $\gamma_{011}$ | | | | $\gamma_{100}$ | | | | $\gamma_{101}$ | | | | $\gamma_{110}$ | | | | $\gamma_{111}$ | | | |
| 150 | 0.1 | 0.095 | 0.008 | 0.021 | | 0.146 | 0.241 | 0.248 | | 0.038 | 0.014 | 0.006 | | 0.174 | -.39 | 0.252 | | 0.088 | 0.008 | 0.022 | | 0.176 | 0.247 | 0.249 | | 0.035 | 0.013 | 0.007 | | 0.151 | 0.146 | 0.252 | |
| 151 | 0.1 | 0.101 | 0.035 | 0.029 | | 0.042 | 0.069 | 0.077 | | 0.108 | 0.036 | 0.032 | | 0.012 | 0.408 | 0.090 | | 0.101 | 0.035 | 0.029 | | 0.034 | 0.069 | 0.077 | | 0.112 | 0.034 | 0.031 | | 0.015 | 0.007 | 0.089 | |
| 152 | 0.1 | 0.042 | 0.002 | 0.001 | | 0.114 | 0.035 | 0.003 | | 0.058 | 0.020 | 0.003 | | 0.138 | 0.444 | 0.006 | | 0.040 | 0.002 | 0.001 | | 0.115 | 0.034 | 0.003 | | 0.057 | 0.016 | 0.002 | | 0.132 | 0.043 | 0.007 | |
| 153 | 0.1 | 0.024 | 0.005 | 0.022 | | 0.040 | 0.044 | 0.040 | | 0.009 | 0.021 | 0.012 | | 0.081 | 0.467 | 0.055 | | 0.022 | 0.004 | 0.021 | | 0.032 | 0.042 | 0.041 | | 0.017 | 0.022 | 0.013 | | 0.091 | 0.066 | 0.054 | |
| 154 | 0.1 | 0.026 | 0.028 | 0.023 | | 0.221 | 0.128 | 0.057 | | 0.031 | 0.029 | 0.022 | | 0.047 | 0.685 | 0.057 | | 0.031 | 0.027 | 0.023 | | 0.222 | 0.127 | 0.056 | | 0.028 | 0.029 | 0.021 | | 0.039 | 0.084 | 0.056 | |
| 155 | 0.3 | 0.022 | 0.014 | 0.050 | 0.026 | 0.453 | 0.139 | 0.186 | 0.082 | 0.038 | 0.018 | 0.057 | 0.028 | 0.667 | -.17 | 0.156 | 0.087 | 0.026 | 0.014 | 0.050 | 0.026 | 0.465 | 0.144 | 0.187 | 0.082 | 0.042 | 0.017 | 0.057 | 0.028 | 0.661 | 0.116 | 0.156 | 0.087 |
| 156 | 0.3 | 0.014 | 0.062 | 0.001 | 0.000 | 0.486 | 0.113 | 0.039 | 0.010 | 0.038 | 0.064 | 0.010 | 0.002 | 0.408 | -.70 | 0.073 | 0.004 | 0.012 | 0.062 | 0.001 | 0.000 | 0.478 | 0.106 | 0.036 | 0.011 | 0.038 | 0.063 | 0.010 | 0.002 | 0.398 | 0.173 | 0.076 | 0.005 |
| 157 | 0.3 | 0.026 | 0.057 | 0.027 | 0.024 | 0.003 | 0.028 | 0.024 | 0.039 | 0.041 | 0.053 | 0.026 | 0.031 | 0.018 | 0.421 | 0.027 | 0.039 | 0.026 | 0.058 | 0.027 | 0.024 | 0.005 | 0.030 | 0.024 | 0.039 | 0.044 | 0.052 | 0.026 | 0.031 | 0.018 | 0.020 | 0.027 | 0.040 |
| 158 | 0.3 | 0.015 | 0.010 | 0.004 | 0.001 | 0.051 | 0.098 | 0.067 | 0.105 | 0.004 | 0.006 | 0.010 | 0.006 | 0.047 | 0.437 | 0.060 | 0.106 | 0.017 | 0.010 | 0.004 | 0.001 | 0.042 | 0.093 | 0.068 | 0.105 | 0.001 | 0.009 | 0.010 | 0.006 | 0.045 | 0.034 | 0.059 | 0.106 |
| 159 | 0.3 | 0.004 | 0.073 | 0.007 | 0.000 | 0.029 | 0.002 | 0.023 | 0.021 | 0.023 | 0.082 | 0.005 | 0.002 | 0.073 | 0.414 | 0.026 | 0.011 | 0.006 | 0.074 | 0.006 | 0.000 | 0.029 | 0.001 | 0.023 | 0.021 | 0.021 | 0.080 | 0.006 | 0.001 | 0.078 | 0.011 | 0.025 | 0.011 |
| 160 | 0.3 | 0.063 | 0.019 | 0.015 | 0.025 | 0.065 | 0.090 | 0.008 | 0.003 | 0.049 | 0.020 | 0.011 | 0.022 | 0.084 | 0.484 | 0.013 | 0.003 | 0.063 | 0.018 | 0.015 | 0.025 | 0.063 | 0.093 | 0.008 | 0.003 | 0.056 | 0.021 | 0.012 | 0.022 | 0.088 | 0.082 | 0.015 | 0.003 |
| 161 | 0.3 | 0.023 | 0.023 | 0.027 | 0.015 | 0.119 | 0.022 | 0.004 | 0.012 | 0.054 | 0.021 | 0.012 | 0.017 | 0.131 | 0.444 | 0.010 | 0.011 | 0.021 | 0.022 | 0.026 | 0.015 | 0.113 | 0.023 | 0.005 | 0.011 | 0.054 | 0.019 | 0.013 | 0.018 | 0.126 | 0.039 | 0.012 | 0.011 |
| 162 | 0.3 | 0.026 | 0.007 | 0.049 | 0.001 | 0.096 | 0.050 | 0.056 | 0.031 | 0.020 | 0.016 | 0.059 | 0.004 | 0.110 | 0.416 | 0.040 | 0.028 | 0.026 | 0.007 | 0.050 | 0.001 | 0.093 | 0.050 | 0.056 | 0.031 | 0.020 | 0.015 | 0.059 | 0.003 | 0.113 | 0.017 | 0.041 | 0.028 |
| 163 | 0.3 | 0.016 | 0.013 | 0.010 | 0.000 | 0.068 | 0.035 | 0.002 | 0.005 | 0.009 | 0.010 | 0.008 | 0.000 | 0.050 | 0.426 | 0.002 | 0.001 | 0.017 | 0.014 | 0.010 | 0.000 | 0.067 | 0.034 | 0.002 | 0.005 | 0.006 | 0.010 | 0.009 | 0.000 | 0.048 | 0.031 | 0.002 | 0.001 |
| 164 | 0.3 | 0.008 | 0.002 | 0.008 | 0.004 | 0.092 | 0.157 | 0.012 | 0.022 | 0.022 | 0.005 | 0.009 | 0.005 | 0.013 | -.88 | 0.020 | 0.034 | 0.008 | 0.002 | 0.008 | 0.004 | 0.105 | 0.157 | 0.012 | 0.023 | 0.021 | 0.005 | 0.009 | 0.005 | 0.020 | 0.191 | 0.023 | 0.034 |
| 165 | 0.3 | 0.011 | 0.021 | 0.012 | 0.013 | 0.022 | 0.015 | 0.009 | 0.021 | 0.027 | 0.023 | 0.009 | 0.012 | 0.014 | 0.421 | 0.015 | 0.022 | 0.011 | 0.021 | 0.012 | 0.013 | 0.022 | 0.014 | 0.009 | 0.021 | 0.028 | 0.024 | 0.009 | 0.012 | 0.015 | 0.020 | 0.015 | 0.022 |
| 166 | 0.3 | 0.027 | 0.019 | 0.004 | 0.003 | 0.107 | 0.039 | 0.005 | 0.076 | 0.019 | 0.021 | 0.001 | 0.001 | 0.117 | 0.406 | 0.014 | 0.075 | 0.026 | 0.020 | 0.003 | 0.003 | 0.129 | 0.036 | 0.004 | 0.076 | 0.018 | 0.020 | 0.001 | 0.001 | 0.107 | 0.006 | 0.014 | 0.076 |
| 167 | 0.3 | 0.013 | 0.022 | 0.015 | 0.011 | 0.007 | 0.065 | 0.005 | 0.011 | 0.035 | 0.017 | 0.007 | 0.012 | 0.002 | 0.462 | 0.000 | 0.014 | 0.014 | 0.021 | 0.015 | 0.012 | 0.004 | 0.063 | 0.005 | 0.011 | 0.036 | 0.018 | 0.007 | 0.012 | 0.006 | 0.062 | 0.000 | 0.015 |
| 168 | 0.3 | 0.011 | 0.010 | 0.000 | 0.005 | 0.029 | 0.007 | 0.023 | 0.018 | 0.006 | 0.012 | 0.001 | 0.004 | 0.020 | 0.420 | 0.021 | 0.016 | 0.011 | 0.010 | 0.000 | 0.005 | 0.030 | 0.006 | 0.023 | 0.018 | 0.005 | 0.013 | 0.001 | 0.004 | 0.020 | 0.020 | 0.021 | 0.016 |
| 169 | 0.3 | 0.039 | 0.004 | 0.003 | 0.001 | 0.005 | 0.021 | 0.024 | 0.006 | 0.027 | 0.006 | 0.005 | 0.001 | 0.011 | 0.407 | 0.028 | 0.005 | 0.037 | 0.004 | 0.003 | 0.001 | 0.003 | 0.021 | 0.024 | 0.006 | 0.028 | 0.007 | 0.005 | 0.001 | 0.013 | 0.008 | 0.027 | 0.004 |
| 170 | 0.3 | 0.033 | 0.001 | 0.002 | 0.004 | 0.011 | 0.067 | 0.001 | 0.011 | 0.047 | 0.007 | 0.001 | 0.005 | 0.013 | 0.458 | 0.001 | 0.012 | 0.032 | 0.000 | 0.002 | 0.004 | 0.012 | 0.068 | 0.001 | 0.011 | 0.047 | 0.008 | 0.001 | 0.005 | 0.013 | 0.057 | 0.001 | 0.012 |
| 171 | 0.7 | 0.014 | 0.014 | 0.008 | 0.001 | 0.160 | 0.004 | 0.039 | 0.082 | 0.013 | 0.011 | 0.008 | 0.001 | 0.114 | 0.450 | 0.049 | 0.092 | 0.014 | 0.014 | 0.008 | 0.001 | 0.152 | 0.003 | 0.039 | 0.082 | 0.011 | 0.010 | 0.008 | 0.001 | 0.119 | 0.052 | 0.049 | 0.093 |
| 172 | 0.7 | 0.002 | 0.007 | 0.006 | 0.002 | 0.012 | 0.026 | 0.007 | 0.018 | 0.003 | 0.006 | 0.006 | 0.001 | 0.003 | 0.437 | 0.008 | 0.019 | 0.002 | 0.007 | 0.006 | 0.002 | 0.011 | 0.026 | 0.007 | 0.018 | 0.002 | 0.006 | 0.006 | 0.001 | 0.001 | 0.037 | 0.008 | 0.019 |
| 173 | 0.7 | 0.000 | 0.004 | 0.001 | 0.001 | 0.022 | 0.069 | 0.035 | 0.006 | 0.009 | 0.001 | 0.002 | 0.000 | 0.058 | 0.481 | 0.034 | 0.009 | 0.001 | 0.004 | 0.001 | 0.001 | 0.019 | 0.068 | 0.035 | 0.006 | 0.007 | 0.001 | 0.002 | 0.000 | 0.062 | 0.083 | 0.034 | 0.009 |
| 174 | 0.7 | 0.000 | 0.010 | 0.003 | 0.002 | 0.028 | 0.026 | 0.110 | 0.048 | 0.007 | 0.006 | 0.005 | 0.002 | 0.022 | 0.428 | 0.131 | 0.044 | 0.001 | 0.009 | 0.003 | 0.002 | 0.028 | 0.026 | 0.109 | 0.048 | 0.007 | 0.006 | 0.005 | 0.002 | 0.026 | 0.030 | 0.132 | 0.044 |
| 175 | 0.1 | 0.071 | 0.029 | 0.062 | | 0.750 | 0.763 | 0.576 | | 0.183 | 0.047 | 0.064 | | 0.467 | 0.402 | 0.426 | | 0.068 | 0.030 | 0.063 | | 0.756 | 0.772 | 0.576 | | 0.181 | 0.045 | 0.064 | | 0.430 | 0.638 | 0.422 | |
| 176 | 0.1 | 0.003 | 0.051 | 0.005 | | 0.043 | 0.926 | 0.148 | | 0.005 | 0.051 | 0.003 | | 0.181 | 0.901 | 0.145 | | 0.008 | 0.053 | 0.005 | | 0.045 | 0.921 | 0.150 | | 0.005 | 0.046 | 0.006 | | 0.184 | 0.895 | 0.143 | |
| 177 | 0.1 | 0.139 | 0.016 | 0.122 | | 0.031 | 0.003 | 0.068 | | 0.192 | 0.010 | 0.112 | | 0.028 | 0.431 | 0.085 | | 0.144 | 0.018 | 0.121 | | 0.038 | 0.005 | 0.066 | | 0.198 | 0.012 | 0.113 | | 0.043 | 0.032 | 0.085 | |
| 178 | 0.1 | 0.005 | 0.036 | 0.064 | | 0.528 | 0.587 | 0.139 | | 0.034 | 0.045 | 0.073 | | 0.553 | 0.402 | 0.086 | | 0.000 | 0.032 | 0.064 | | 0.541 | 0.580 | 0.143 | | 0.045 | 0.037 | 0.073 | | 0.566 | 0.562 | 0.097 | |
| 179 | 0.1 | 0.100 | 0.111 | 0.044 | | 0.546 | 0.067 | 0.049 | | 0.042 | 0.071 | 0.036 | | 0.557 | 0.452 | 0.048 | | 0.086 | 0.111 | 0.044 | | 0.542 | 0.065 | 0.053 | | 0.037 | 0.080 | 0.039 | | 0.533 | 0.067 | 0.054 | |
| 180 | 0.1 | 0.104 | 0.068 | 0.134 | | 0.218 | 0.001 | 0.097 | | 0.105 | 0.069 | 0.119 | | 0.188 | 0.439 | 0.107 | | 0.103 | 0.073 | 0.134 | | 0.211 | 0.002 | 0.100 | | 0.100 | 0.072 | 0.117 | | 0.174 | 0.027 | 0.105 | |
| 181 | 0.1 | 0.129 | 0.056 | 0.036 | | 0.003 | 0.230 | 0.121 | | 0.185 | 0.044 | 0.032 | | 0.141 | 0.300 | 0.153 | | 0.131 | 0.056 | 0.038 | | 0.012 | 0.230 | 0.121 | | 0.185 | 0.047 | 0.031 | | 0.138 | 0.193 | 0.156 | |
| 182 | 0.1 | 0.278 | 0.074 | 0.039 | | 0.310 | 0.123 | 0.109 | | 0.275 | 0.069 | 0.037 | | 0.365 | -.08 | 0.090 | | 0.277 | 0.073 | 0.038 | | 0.331 | 0.121 | 0.112 | | 0.281 | 0.066 | 0.038 | | 0.395 | 0.102 | 0.090 | |
| 183 | 0.1 | 0.079 | 0.022 | 0.008 | | 0.169 | 0.226 | 0.235 | | 0.050 | 0.040 | 0.012 | | 0.129 | -.99 | 0.209 | | 0.077 | 0.023 | 0.007 | | 0.178 | 0.221 | 0.233 | | 0.055 | 0.039 | 0.014 | | 0.108 | 0.198 | 0.209 | |
| 184 | 0.1 | 0.006 | 0.005 | 0.025 | | 0.846 | 0.134 | 0.110 | | 0.027 | 0.007 | 0.012 | | 0.392 | -.90 | 0.101 | | 0.002 | 0.005 | 0.025 | | 0.855 | 0.141 | 0.112 | | 0.034 | 0.007 | 0.013 | | 0.438 | 0.196 | 0.093 | |
| 185 | 0.1 | 0.012 | 0.025 | 0.017 | | 0.034 | 0.173 | 0.053 | | 0.024 | 0.041 | 0.023 | | 0.047 | -.28 | 0.053 | | 0.013 | 0.026 | 0.018 | | 0.024 | 0.172 | 0.053 | | 0.025 | 0.039 | 0.022 | | 0.015 | 0.134 | 0.051 | |
| 186 | 0.1 | 0.015 | 0.011 | 0.007 | | 0.105 | 0.288 | 0.112 | | 0.011 | 0.036 | 0.006 | | 0.038 | 0.385 | 0.028 | | 0.020 | 0.008 | 0.006 | | 0.104 | 0.274 | 0.115 | | 0.014 | 0.036 | 0.006 | | 0.054 | 0.281 | 0.040 | |
| 187 | 0.1 | 0.071 | 0.055 | 0.032 | | 0.093 | 0.005 | 0.083 | | 0.108 | 0.071 | 0.037 | | 0.056 | 0.411 | 0.087 | | 0.069 | 0.053 | 0.033 | | 0.093 | 0.003 | 0.084 | | 0.102 | 0.071 | 0.037 | | 0.070 | 0.010 | 0.087 | |
| 188 | 0.1 | 0.048 | 0.043 | 0.027 | | 0.089 | 0.095 | 0.090 | | 0.058 | 0.023 | 0.031 | | 0.095 | 0.473 | 0.081 | | 0.047 | 0.043 | 0.027 | | 0.090 | 0.095 | 0.090 | | 0.068 | 0.025 | 0.031 | | 0.084 | 0.074 | 0.082 | |
| 189 | 0.1 | 0.044 | 0.010 | 0.042 | | 0.075 | 0.009 | 0.001 | | 0.028 | 0.028 | 0.035 | | 0.088 | 0.407 | 0.013 | | 0.044 | 0.011 | 0.042 | | 0.074 | 0.013 | 0.000 | | 0.029 | 0.026 | 0.034 | | 0.072 | 0.009 | 0.012 | |
| 190 | 0.1 | 0.128 | 0.017 | 0.023 | | 0.222 | 0.276 | 0.005 | | 0.113 | 0.010 | 0.029 | | 0.251 | -.34 | 0.004 | | 0.124 | 0.018 | 0.023 | | 0.210 | 0.278 | 0.004 | | 0.110 | 0.014 | 0.030 | | 0.257 | 0.237 | 0.002 | |
| 191 | 0.3 | 0.037 | 0.060 | 0.006 | 0.018 | 0.053 | 0.219 | 0.084 | 0.026 | 0.026 | 0.061 | 0.001 | 0.015 | 0.133 | 0.330 | 0.101 | 0.027 | 0.037 | 0.061 | 0.006 | 0.017 | 0.047 | 0.215 | 0.084 | 0.026 | 0.022 | 0.060 | 0.001 | 0.015 | 0.148 | 0.196 | 0.101 | 0.028 |
| 192 | 0.3 | 0.026 | 0.020 | 0.009 | 0.010 | 0.182 | 0.031 | 0.101 | 0.013 | 0.012 | 0.017 | 0.009 | 0.010 | 0.234 | 0.411 | 0.120 | 0.008 | 0.030 | 0.020 | 0.009 | 0.010 | 0.180 | 0.025 | 0.100 | 0.014 | 0.012 | 0.018 | 0.008 | 0.010 | 0.215 | 0.012 | 0.119 | 0.009 |
| 193 | 0.3 | 0.024 | 0.009 | 0.002 | 0.005 | 0.088 | 0.037 | 0.036 | 0.023 | 0.023 | 0.010 | 0.003 | 0.008 | 0.149 | 0.423 | 0.033 | 0.022 | 0.026 | 0.010 | 0.002 | 0.005 | 0.091 | 0.034 | 0.035 | 0.023 | 0.021 | 0.009 | 0.003 | 0.008 | 0.143 | 0.019 | 0.032 | 0.023 |
| 194 | 0.3 | 0.058 | 0.011 | 0.003 | 0.012 | 0.122 | 0.345 | 0.030 | 0.095 | 0.068 | 0.008 | 0.007 | 0.013 | 0.163 | 0.794 | 0.035 | 0.092 | 0.059 | 0.011 | 0.003 | 0.012 | 0.113 | 0.347 | 0.030 | 0.094 | 0.068 | 0.007 | 0.006 | 0.013 | 0.170 | 0.290 | 0.036 | 0.091 |
| 195 | 0.3 | 0.005 | 0.013 | 0.004 | 0.013 | 0.017 | 0.026 | 0.124 | 0.002 | 0.032 | 0.005 | 0.005 | 0.014 | 0.044 | 0.838 | 0.127 | 0.002 | 0.008 | 0.011 | 0.004 | 0.013 | 0.019 | 0.029 | 0.124 | 0.002 | 0.036 | 0.003 | 0.006 | 0.014 | 0.026 | 0.036 | 0.128 | 0.002 |
| 196 | 0.3 | 0.007 | 0.033 | 0.013 | 0.002 | 0.028 | 0.037 | 0.157 | 0.018 | 0.017 | 0.037 | 0.010 | 0.003 | 0.025 | 0.406 | 0.147 | 0.016 | 0.006 | 0.033 | 0.013 | 0.002 | 0.032 | 0.038 | 0.157 | 0.018 | 0.018 | 0.036 | 0.010 | 0.003 | 0.023 | 0.015 | 0.148 | 0.016 |
| 197 | 0.3 | 0.036 | 0.010 | 0.002 | 0.013 | 0.143 | 0.020 | 0.031 | 0.061 | 0.048 | 0.003 | 0.002 | 0.012 | 0.205 | 0.412 | 0.028 | 0.057 | 0.034 | 0.010 | 0.002 | 0.013 | 0.141 | 0.019 | 0.032 | 0.061 | 0.048 | 0.005 | 0.003 | 0.012 | 0.190 | 0.016 | 0.026 | 0.057 |
| 198 | 0.3 | 0.010 | 0.008 | 0.008 | 0.004 | 0.030 | 0.005 | 0.015 | 0.011 | 0.003 | 0.003 | 0.012 | 0.004 | 0.034 | 0.424 | 0.015 | 0.013 | 0.010 | 0.008 | 0.008 | 0.004 | 0.033 | 0.006 | 0.016 | 0.011 | 0.004 | 0.003 | 0.011 | 0.004 | 0.033 | 0.022 | 0.016 | 0.012 |
| 199 | 0.3 | 0.012 | 0.023 | 0.005 | 0.011 | 0.099 | 0.004 | 0.020 | 0.020 | 0.009 | 0.018 | 0.006 | 0.011 | 0.110 | 0.404 | 0.021 | 0.021 | 0.011 | 0.022 | 0.005 | 0.011 | 0.098 | 0.004 | 0.019 | 0.020 | 0.011 | 0.019 | 0.006 | 0.011 | 0.105 | 0.004 | 0.021 | 0.021 |
| 200 | 0.3 | 0.004 | 0.010 | 0.008 | 0.008 | 0.006 | 0.031 | 0.017 | 0.010 | 0.005 | 0.010 | 0.010 | 0.009 | 0.005 | 0.441 | 0.016 | 0.008 | 0.004 | 0.011 | 0.008 | 0.008 | 0.005 | 0.031 | 0.017 | 0.010 | 0.004 | 0.009 | 0.010 | 0.009 | 0.006 | 0.040 | 0.016 | 0.008 |
| 201 | 0.3 | 0.009 | 0.007 | 0.006 | 0.007 | 0.018 | 0.022 | 0.007 | 0.002 | 0.003 | 0.007 | 0.006 | 0.015 | 0.015 | 0.421 | 0.006 | 0.001 | 0.008 | 0.007 | 0.006 | 0.007 | 0.017 | 0.023 | 0.007 | 0.002 | 0.002 | 0.008 | 0.007 | 0.006 | 0.019 | 0.022 | 0.006 | 0.001 |
| 202 | 0.3 | 0.014 | 0.014 | 0.007 | 0.001 | 0.017 | 0.004 | 0.008 | 0.006 | 0.019 | 0.012 | 0.005 | 0.002 | 0.026 | 0.405 | 0.002 | 0.004 | 0.013 | 0.014 | 0.007 | 0.001 | 0.014 | 0.004 | 0.008 | 0.006 | 0.020 | 0.011 | 0.006 | 0.002 | 0.029 | 0.005 | 0.002 | 0.005 |
| 203 | 0.3 | 0.034 | 0.028 | 0.012 | 0.004 | 0.058 | 0.033 | 0.011 | 0.007 | 0.020 | 0.020 | 0.008 | 0.002 | 0.070 | 0.435 | 0.007 | 0.005 | 0.036 | 0.028 | 0.012 | 0.004 | 0.056 | 0.033 | 0.011 | 0.007 | 0.019 | 0.020 | 0.008 | 0.002 | 0.067 | 0.035 | 0.007 | 0.005 |
| 204 | 0.7 | 0.003 | 0.003 | 0.008 | 0.001 | 0.004 | 0.008 | 0.006 | 0.023 | 0.002 | 0.004 | 0.006 | 0.001 | 0.024 | 0.406 | 0.007 | 0.020 | 0.003 | 0.003 | 0.008 | 0.001 | 0.001 | 0.007 | 0.005 | 0.023 | 0.002 | 0.004 | 0.006 | 0.001 | 0.025 | 0.008 | 0.007 | 0.020 |
| 205 | 0.7 | 0.002 | 0.002 | 0.006 | 0.003 | 0.019 | 0.022 | 0.030 | 0.015 | 0.003 | 0.005 | 0.005 | 0.003 | 0.002 | 0.418 | 0.028 | 0.016 | 0.002 | 0.002 | 0.006 | 0.003 | 0.020 | 0.021 | 0.030 | 0.015 | 0.003 | 0.005 | 0.005 | 0.003 | 0.002 | 0.014 | 0.028 | 0.017 |
| 206 | 0.1 | 0.156 | 0.009 | 0.029 | | 1.363 | 0.813 | 0.051 | | 0.213 | 0.025 | 0.054 | | 1.454 | 0.907 | 0.095 | | 0.159 | 0.009 | 0.028 | | 1.324 | 0.809 | 0.052 | | 0.208 | 0.026 | 0.053 | | 1.378 | 0.884 | 0.094 | |
| 207 | 0.1 | 0.007 | 0.151 | 0.033 | | 0.377 | 0.742 | 0.358 | | 0.019 | 0.120 | 0.039 | | 0.459 | 0.891 | 0.327 | | 0.002 | 0.152 | 0.031 | | 0.394 | 0.739 | 0.365 | | 0.007 | 0.125 | 0.039 | | 0.468 | 0.911 | 0.332 | |
| 208 | 0.1 | 0.318 | 0.008 | 0.016 | | 0.445 | 0.076 | 0.026 | | 0.404 | 0.002 | 0.001 | | 0.265 | 0.898 | 0.001 | | 0.316 | 0.008 | 0.016 | | 0.456 | 0.087 | 0.028 | | 0.404 | 0.003 | 0.001 | | 0.256 | 0.087 | 0.001 | |
| 209 | 0.1 | 0.022 | 0.006 | 0.088 | | 0.826 | 0.204 | 0.340 | | 0.008 | 0.032 | 0.091 | | 0.671 | -.23 | 0.359 | | 0.022 | 0.006 | 0.087 | | 0.840 | 0.236 | 0.344 | | 0.018 | 0.025 | 0.091 | | 0.665 | 0.160 | 0.361 | |
| 210 | 0.1 | 0.163 | 0.053 | 0.124 | | 0.216 | 0.103 | 0.282 | | 0.144 | 0.058 | 0.114 | | 0.134 | 0.676 | 0.292 | | 0.163 | 0.050 | 0.125 | | 0.215 | 0.091 | 0.282 | | 0.153 | 0.058 | 0.113 | | 0.149 | 0.068 | 0.293 | |
| 211 | 0.1 | 0.022 | 0.165 | 0.065 | | 0.056 | 0.037 | 0.037 | | 0.012 | 0.148 | 0.076 | | 0.148 | 0.412 | 0.035 | | 0.030 | 0.164 | 0.065 | | 0.057 | 0.035 | 0.036 | | 0.007 | 0.143 | 0.077 | | 0.133 | 0.014 | 0.034 | |
| 212 | 0.1 | 0.041 | 0.010 | 0.073 | | 0.203 | 0.130 | 0.150 | | 0.051 | 0.015 | 0.069 | | 0.280 | 0.453 | 0.152 | | 0.044 | 0.015 | 0.072 | | 0.207 | 0.123 | 0.150 | | 0.056 | 0.016 | 0.069 | | 0.261 | 0.070 | 0.157 | |
| 213 | 0.1 | 0.163 | 0.026 | 0.022 | | 0.296 | 0.013 | 0.169 | | 0.205 | 0.087 | 0.007 | | 0.238 | 0.451 | 0.196 | | 0.164 | 0.029 | 0.022 | | 0.274 | 0.019 | 0.169 | | 0.202 | 0.082 | 0.007 | | 0.231 | 0.048 | 0.194 | |
| 214 | 0.1 | 0.039 | 0.057 | 0.048 | | 0.119 | 0.136 | 0.062 | | 0.044 | 0.049 | 0.048 | | 0.173 | -.27 | 0.113 | | 0.038 | 0.058 | 0.048 | | 0.125 | 0.164 | 0.061 | | 0.042 | 0.049 | 0.048 | | 0.181 | 0.136 | 0.112 | |
| 215 | 0.1 | 0.052 | 0.016 | 0.003 | | 0.068 | 0.026 | 0.247 | | 0.079 | 0.028 | 0.003 | | 0.069 | 0.495 | 0.134 | | 0.055 | 0.015 | 0.003 | | 0.071 | 0.026 | 0.244 | | 0.078 | 0.029 | 0.004 | | 0.097 | 0.107 | 0.131 | |
| 216 | 0.1 | 0.050 | 0.064 | 0.020 | | 0.052 | 0.072 | 0.034 | | 0.021 | 0.092 | 0.009 | | 0.023 | 0.475 | 0.036 | | 0.049 | 0.065 | 0.020 | | 0.057 | 0.073 | 0.035 | | 0.016 | 0.088 | 0.010 | | 0.026 | 0.073 | 0.035 | |
| 217 | 0.1 | 0.094 | 0.007 | 0.052 | | 0.046 | 0.043 | 0.201 | | 0.081 | 0.013 | 0.051 | | 0.128 | 0.452 | 0.201 | | 0.096 | 0.009 | 0.052 | | 0.045 | 0.046 | 0.202 | | 0.073 | 0.016 | 0.050 | | 0.123 | 0.063 | 0.201 | |
| 218 | 0.1 | 0.029 | 0.085 | 0.010 | | 0.057 | 0.050 | 0.000 | | 0.001 | 0.079 | 0.008 | | 0.036 | 0.448 | 0.015 | | 0.029 | 0.085 | 0.010 | | 0.054 | 0.055 | 0.001 | | 0.002 | 0.079 | 0.007 | | 0.038 | 0.052 | 0.015 | |
| 219 | 0.1 | 0.000 | 0.016 | 0.036 | | 0.157 | 0.140 | 0.042 | | 0.009 | 0.014 | 0.042 | | 0.155 | -.15 | 0.027 | | 0.001 | 0.018 | 0.037 | | 0.161 | 0.139 | 0.043 | | 0.006 | 0.016 | 0.042 | | 0.161 | 0.114 | 0.029 | |
| 220 | 0.1 | 0.033 | 0.044 | 0.017 | | 0.063 | 0.016 | 0.093 | | 0.003 | 0.049 | 0.022 | | 0.060 | 0.434 | 0.112 | | 0.031 | 0.040 | 0.017 | | 0.064 | 0.013 | 0.093 | | 0.004 | 0.053 | 0.021 | | 0.073 | 0.037 | 0.113 | |
| 221 | 0.1 | 0.041 | 0.006 | 0.023 | | 0.004 | 0.095 | 0.052 | | 0.034 | 0.005 | 0.025 | | 0.020 | -.22 | 0.055 | | 0.043 | 0.006 | 0.023 | | 0.001 | 0.095 | 0.052 | | 0.034 | 0.005 | 0.026 | | 0.008 | 0.115 | 0.055 | |
| 222 | 0.3 | 0.080 | 0.005 | 0.002 | 0.005 | 0.255 | 0.031 | 0.064 | 0.087 | 0.108 | 0.005 | 0.009 | 0.004 | 0.053 | 0.441 | 0.080 | 0.107 | 0.080 | 0.005 | 0.002 | 0.005 | 0.243 | 0.034 | 0.064 | 0.086 | 0.106 | 0.005 | 0.009 | 0.004 | 0.051 | 0.046 | 0.076 | 0.108 |
| 223 | 0.3 | 0.086 | 0.042 | 0.003 | 0.019 | 0.009 | 0.071 | 0.125 | 0.033 | 0.085 | 0.022 | 0.004 | 0.020 | 0.065 | -.10 | 0.137 | 0.026 | 0.085 | 0.042 | 0.003 | 0.019 | 0.011 | 0.068 | 0.124 | 0.034 | 0.085 | 0.023 | 0.004 | 0.020 | 0.075 | 0.100 | 0.139 | 0.027 |
| 224 | 0.3 | 0.038 | 0.002 | 0.012 | 0.015 | 0.036 | 0.191 | 0.046 | 0.016 | 0.040 | 0.004 | 0.016 | 0.011 | 0.010 | -.63 | 0.035 | 0.018 | 0.040 | 0.002 | 0.012 | 0.015 | 0.033 | 0.188 | 0.045 | 0.016 | 0.044 | 0.004 | 0.016 | 0.011 | 0.010 | 0.168 | 0.035 | 0.017 |
| 225 | 0.3 | 0.021 | 0.030 | 0.002 | 0.016 | 0.076 | 0.132 | 0.139 | 0.069 | 0.012 | 0.032 | 0.001 | 0.016 | 0.084 | -.55 | 0.140 | 0.058 | 0.025 | 0.029 | 0.002 | 0.016 | 0.070 | 0.133 | 0.141 | 0.069 | 0.011 | 0.033 | 0.001 | 0.016 | 0.084 | 0.157 | 0.143 | 0.058 |
| 226 | 0.3 | 0.003 | 0.010 | 0.033 | 0.008 | 0.067 | 0.002 | 0.123 | 0.026 | 0.001 | 0.021 | 0.032 | 0.007 | 0.075 | 0.418 | 0.113 | 0.034 | 0.007 | 0.010 | 0.033 | 0.008 | 0.065 | 0.002 | 0.124 | 0.026 | 0.000 | 0.023 | 0.032 | 0.007 | 0.082 | 0.015 | 0.113 | 0.034 |
| 227 | 0.3 | 0.004 | 0.003 | 0.005 | 0.003 | 0.052 | 0.072 | 0.016 | 0.018 | 0.008 | 0.002 | 0.005 | 0.002 | 0.050 | 0.463 | 0.019 | 0.016 | 0.004 | 0.003 | 0.005 | 0.003 | 0.054 | 0.074 | 0.017 | 0.017 | 0.005 | 0.002 | 0.006 | 0.002 | 0.054 | 0.063 | 0.018 | 0.016 |
| 228 | 0.3 | 0.002 | 0.004 | 0.001 | 0.005 | 0.065 | 0.156 | 0.041 | 0.001 | 0.009 | 0.007 | 0.001 | 0.007 | 0.067 | 0.705 | 0.043 | 0.003 | 0.002 | 0.004 | 0.001 | 0.005 | 0.065 | 0.157 | 0.040 | 0.001 | 0.007 | 0.007 | 0.001 | 0.007 | 0.058 | 0.202 | 0.045 | 0.002 |
| 229 | 0.3 | 0.014 | 0.002 | 0.008 | 0.004 | 0.046 | 0.003 | 0.006 | 0.030 | 0.016 | 0.005 | 0.010 | 0.004 | 0.060 | 0.801 | 0.003 | 0.028 | 0.013 | 0.002 | 0.008 | 0.003 | 0.048 | 0.003 | 0.006 | 0.030 | 0.019 | 0.006 | 0.010 | 0.004 | 0.057 | 0.001 | 0.003 | 0.028 |
| 230 | 0.3 | 0.014 | 0.008 | 0.015 | 0.002 | 0.046 | 0.099 | 0.011 | 0.011 | 0.026 | 0.008 | 0.014 | 0.002 | 0.020 | -.05 | 0.012 | 0.017 | 0.015 | 0.009 | 0.015 | 0.002 | 0.048 | 0.099 | 0.011 | 0.011 | 0.027 | 0.008 | 0.013 | 0.002 | 0.015 | 0.104 | 0.012 | 0.018 |
| 231 | 0.3 | 0.010 | 0.006 | 0.004 | 0.001 | 0.070 | 0.004 | 0.005 | 0.013 | 0.016 | 0.006 | 0.005 | 0.000 | 0.079 | 0.414 | 0.007 | 0.013 | 0.011 | 0.005 | 0.004 | 0.001 | 0.071 | 0.003 | 0.005 | 0.013 | 0.016 | 0.006 | 0.005 | 0.000 | 0.078 | 0.017 | 0.007 | 0.013 |
| 232 | 0.3 | 0.037 | 0.002 | 0.006 | 0.009 | 0.011 | 0.031 | 0.004 | 0.006 | 0.032 | 0.002 | 0.006 | 0.011 | 0.001 | 0.433 | 0.000 | 0.006 | 0.038 | 0.001 | 0.006 | 0.009 | 0.010 | 0.031 | 0.005 | 0.006 | 0.034 | 0.002 | 0.006 | 0.010 | 0.000 | 0.033 | 0.001 | 0.005 |
| 233 | 0.3 | 0.029 | 0.011 | 0.014 | 0.002 | 0.091 | 0.082 | 0.027 | 0.012 | 0.025 | 0.011 | 0.015 | 0.002 | 0.101 | 0.678 | 0.027 | 0.012 | 0.028 | 0.011 | 0.014 | 0.002 | 0.093 | 0.081 | 0.026 | 0.012 | 0.024 | 0.012 | 0.015 | 0.002 | 0.105 | 0.077 | 0.026 | 0.012 |
| 234 | 0.3 | 0.018 | 0.018 | 0.003 | 0.006 | 0.064 | 0.027 | 0.

- For effect size 0.7, Level-3 intercept parameters ($\gamma_{000}$, $\gamma_{100}$, $\gamma_{010}$, $\gamma_{110}$) with small sample sizes achieved minimum sufficient power of 0.80 when re-sampled between 50 and 100 sample sizes per each level with initial error variance $\sigma_e^2 = 1.0$, and less than 30 sample sizes per level with initial error variance $\sigma_e^2 = 2.0$.

- Level-3 slope parameters ($\gamma_{001}$, $\gamma_{101}$, $\gamma_{011}$, $\gamma_{111}$) with effect size 0.7 and small sample sizes came close to achieving minimum sufficient power of 0.80 when re-sampled to 200 sample sizes per each level with initial error variance $\sigma_e^2 = 1.0$, and did achieve minimum sufficient power when re-sampled to 100 sample sizes per each level with initial error variance $\sigma_e^2 = 2.0$. For both cases, the re-sampled sample size depended on the level predictor variances.

- The intercept and slope parameters with effect size 0.3 and small sample sizes, achieved minimum power of 0.80 when re-sampled to 200 sample sizes per each level with initial error variance $\sigma_e^2 = 2.0$.

- Both intercept and slope parameters with effect size 0.1 and initial error variance ($\sigma_e^2 = 1.0, 2.0$) did not achieve minimum sufficient power when re-sampled to 200 sample sizes per each level.

- As effect size increased from 0.1 to 0.7, the bias for all Level-3 parameters decreases for all predictor and error variances considered.

- The bias for initial error variance scenarios with $\sigma_e^2 = 1.0$ is less than those with $\sigma_e^2 = 2.0$.

- For effect sizes 0.3 and 0.7 as the considered re-sampled sample size increases, the parameter bias increases.

- The overall average relative bias ranged from 0.00 to 0.30.

**Summary.**

For operationally realistic small sample sizes, when the parameters of Level-2 and Level-3 HLMs did not achieve minimum sufficient power of 0.80 for specific scenarios based on level predictor variances, initial error variance, and effect size, the small sample sizes considered were re-sampled to larger samples per each level. Depending on the level predictor variances, in general, when re-sampled sample sizes were considered, for medium and high effect sizes (0.3 and 0.7) minimum sufficient power of 0.80 was achieved. Though as the re-sampled sample size increased per each level, not only did the computation time exponentially increase, but the absolute relative bias did as well.

The re-sampling procedure demonstrated in this research shows that due to limitations such as population size, cost, access to data (i.e., analysts), and changing environments, minimum sufficient power could still be achieved for multi-level models and average absolute relative bias estimated primarily depending on effect size. The re-sampled sample sizes per each level introduced and shown in this research is a simulation procedure that does not directly interfere with the work effort or performance of operational HLMs. Though due to software limitations and run times, larger re-sampling and higher levels were not achievable. Further, with this caution in mind, larger sample sizes could be explored. However, we caution that the user should consider the smallest sample size required for the re-sampling and that at some point re-sampling sample size requirements could be too large in order to return appropriate level of absolute relative bias. With advancements in the software capabilities and computing power this process can be applied to higher levels and larger re-sampled sample sizes with greater precision in comparison to results from Level-2 and Level-3 scaled comparably.

To assess human-machine system performance, this research investigated the operational multi-level model the Air Force Distributed Command Ground System (AF DCGS). The AF DCGS is a Level-4 HLM and the Level-3 and Level-4 details are in Chapter V. Through power calculations, this research shows the need and benefit of the re-sampling procedure introduced in this research for sample size criteria.

# V. Research Objective 3: Notional Example of DCGS Operational Application

## 5.1 Level-3 and Level-4 Air Force Notional DCGS Example

To understand Level-3 and Level-4 HLM human-machine systems, we primarily focus on the notional example of the Air Force Distributed Command Ground System Full Motion Video (AF DCGS FMV) PED cell consisting of the following five analyst positions: Eyes On, Screener, Eyes Off, MSA and Geo. The roles for each of these analysts is outlined in Table 31. The DCGS PED cell is a team of analysts that is given a list of Essential Elements of Information (EEIs) from customers down range. The EEIs define information needed to be captured and recorded within PowerPoint slides for evaluation and decision making. The PowerPoint slides are products and the workflow of the products and their accuracy can be measured by product accuracy and duration, communication, human interface, subjective metrics, and physiological metrics, outlined in Figure 52.

| **Position** | **Roles** |
|---|---|
| Eyes On | - Observes the full-motion video (FMV) feed and interprets activities in the world as spoken verbalizations |
| Screener | - Leads and manages PED team<br>- Captures Eyes On Interpretations as text<br>- Disseminates findings and products<br>- Maintains mission situational awareness<br>- Coordinates with Partners |
| Eyes Off | - Backup support for Eyes On<br>- Support MSA as needed in product generation |
| MSA | - Generates products<br>- Coordinates with DOF for analytical enrichments |
| Geo | - Monitors “global” view of FMV<br>- Supports maintenance of mission situational awareness<br>- Supports MSA as needed in product generation |

**Table 31. Possible DCGS analyst positions and roles.**

To understand the workflow of the DCGS for this specific Level-3 and Level-4 HLM application, assume a customer requested a single PowerPoint slide to be a product. To

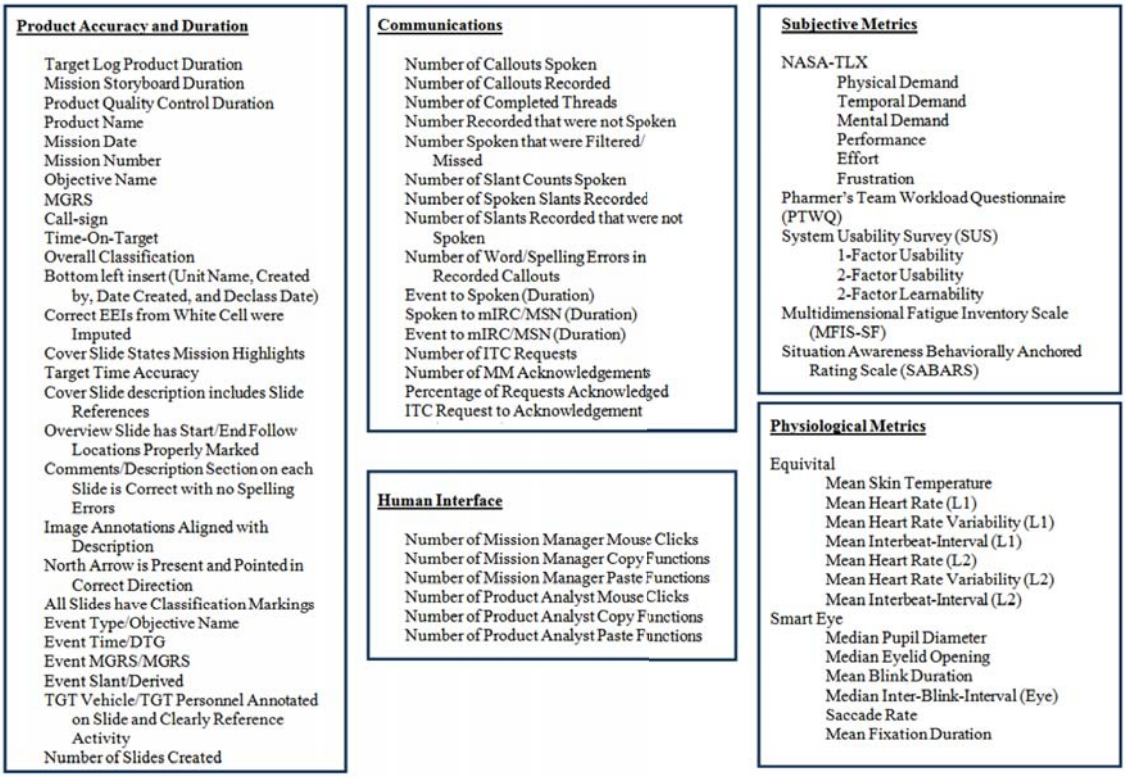


**Figure 52. DGS-SOF PED cell metrics**

determine the time in minutes to complete and submit a product to customer, ($Y_{ijkl}$), consider a Level-4 HLM model to be composed of the following levels: time to detect an EEI (Level-1: predictor variable $A_{ijkl}$), time to capture a callout in a chat (Level-2: predictor variable $X_{ijkl}$), time to create a product with request (Level-3: predictor variable $X_{ijkl}$), and time to quality control (QC) a product (Level-4: predictor variable $Z_{ijkl}$). The full Level-4 HLM for DCGS FMV is

$$
\begin{aligned}
Y_{ijkl} = {} & \delta_{0000} + \delta_{1000}A_{ijkl} + \delta_{0100}X_{ijkl} + \delta_{0010}W_{ijkl} + \delta_{0001}Z_{ijkl} + \delta_{1100}A_{ijkl}X_{ijkl} + \delta_{1010}A_{ijkl}W_{ijkl} \\
& + \delta_{1001}A_{ijkl}Z_{ijkl} + \delta_{0110}X_{ijkl}W_{ijkl} + \delta_{0101}X_{ijkl}Z_{ijkl} + \delta_{0011}W_{ijkl}Z_{ijkl} + \delta_{1110}A_{ijkl}X_{ijkl}W_{ijkl} \\
& + \delta_{1101}A_{ijkl}X_{ijkl}Z_{ijkl} + \delta_{1011}A_{ijkl}W_{ijkl}Z_{ijkl} + \delta_{0111}X_{ijkl}W_{ijkl}Z_{ijkl} + \delta_{1111}A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl} \\
& + v_{111l}A_{ijkl}X_{ijkl}W_{ijkl} + v_{011l}X_{ijkl}W_{ijkl} + v_{101l}A_{ijkl}W_{ijkl} + v_{110l}A_{ijkl}X_{ijkl} \\
& + v_{001l}W_{ijkl} + v_{010l}X_{ijkl} + v_{100l}A_{ijkl} + v_{000l} \\
& + u_{11kl}A_{ijkl}X_{ijkl} + u_{00kl} + u_{01kl}X_{ijkl} + u_{10kl}A_{ijkl} + r_{1jkl}A_{ijkl} + r_{0jkl} + e_{ijkl}.
\end{aligned}
$$

In the absence of data, the predictor and error variance distributions of a hypothetical model are developed based on subject matter expert (SME) opinion. The distributions provided might not be normal, such as in this case, and normal transformations should be applied to use the findings of Research Objective 1 and 2 of this research to coincide with HLM assumptions. The final specific level distributions and transformations are outlined in Table 32. The current DCGS community consists of about 1,000 full-motion video (FMV) analysts and the associated sample sizes available at Level-1, Level-2, Level-3, and Level-4 are: 5 (for n), 8 (for g), 5 (for h), and 5 (for f), respectively [1, 2]. That is, 5 analysts per a PED (Level-2 individual), 8 PEDs per a unit (Level-2 team), 5 units per a site (Level-3 unit), and 5 sites total (Level-4 organization). Within the DCGS community, we assume the novice (less experienced) analyst models, PED cell, unit, and organization have more variability per level (e.g., error variance by level $\sigma_e^2, \sigma_r^2, \sigma_u^2, \sigma_v^2$) than the expert (more experienced) analyst models. This notional application compares both the novice and expert analyst models for both a Level-3 and Level-4 HLM.

**Table 32. Notional example of DCGS application and associated distributions by level**

| Level | Predictor Variable | Level Representation in Time | Assumed Distribution | Transformed Distribution |
|---|---|---|---|---|
| 1 | $A_{ijkl}$ | time to detect an EEI | $Gamma(1.0, 0.07)$ | Box-Cox $\lambda = 0.04$ $N(8.82, 23.43)$ |
| 2 | $X_{ijkl}$ | time to capture a callout in a chat | $Uniform(1, 2)$ | $N(0.0016, 0.9943)$ |
| 3 | $W_{ijkl}$ | time to create a product with request | $Gamma(3.0, 1.11)$ | Box-Cox $\lambda = 1.44$ $N(-1.49, 0.0045)$ |
| 4 | $Z_{ijkl}$ | time to perform quality control of a product | N(10,18.06) | |
| | $Y_{ijkl}$ | Total time to complete and submit a product to customer | $Gamma(3.0, 3.0)$ | Box-Cox $\lambda = 1.022$ $N(0.025, 0.0064)$ |

The Level-1 predictor, $A_{ijkl}$, is the time in minutes to detect an EEI. The data follows a

gamma distribution such that the median is 0.083 minutes (Equation 34) and almost all the EEIs (0.999) are detected within 0.333 minutes (Equation 35). These properties are given by:

$$\int_0^{0.083} \frac{1}{\Gamma(\alpha)\beta^\alpha} x^{\alpha-1} e^{-x/\beta} dx = 0.50, \tag{34}$$

$$\int_0^{0.333} \frac{1}{\Gamma(\alpha)\beta^\alpha} x^{\alpha-1} e^{-x/\beta} dx = 0.999. \tag{35}$$

Solving for $\alpha$ and $\beta$, the approximated gamma distribution is $Gamma(1.0, 0.07)$, (Figure 53), such that:

$$\int_0^{0.083} \frac{1}{\Gamma(1)0.07^1} x^{1-1} e^{-x/0.07} dx = \int_0^{0.083} \frac{1}{0.07} e^{-x/0.07} dx = 0.511,$$

$$\int_0^{0.333} \frac{1}{\Gamma(1)0.07^1} x^{1-1} e^{-x/0.07} dx = \int_0^{0.333} \frac{1}{0.07} e^{-x/0.07} dx = 0.999.$$

To approximate a normal distribution, 10,000 $Gamma(1.0, 0.7)$ iterations were run and the Box-Cox transformation with $\lambda = 0.04$ was found such that:

$$Box - Cox_{Gamma(1.0,0.07)} = \frac{{y_{Gamma(1.0,0.07)}}^{0.04} - 1}{0.01867}. \tag{36}$$

Therefore, the transformed Level-1 predictor distribution is $A_{ijkl} \sim N(8.82, 23.43)$, as given in Table 32.

The Level-2 predictor, $X_{ijkl}$, takes 1 to 2 minutes to capture a callout in a chat. The data follows the uniform distribution $Uniform(1, 2)$ (Figure 54). By the Probability Integral Transformation, $P(X \leq x) = x, 0 < x < 1$ (Theorem 2.1.10 of [9]), when the transformation $V = X - 1$ is applied to $X_{ijkl} \sim Uniform(0, 1)$. This transformation is needed to generate the cumulative distribution function (CDF) of the underlying normal distribution.

This transformed Level-2 predictor distribution $V_{ijkl} \sim N(0.0016, 0.9943)$ (Figure 54).

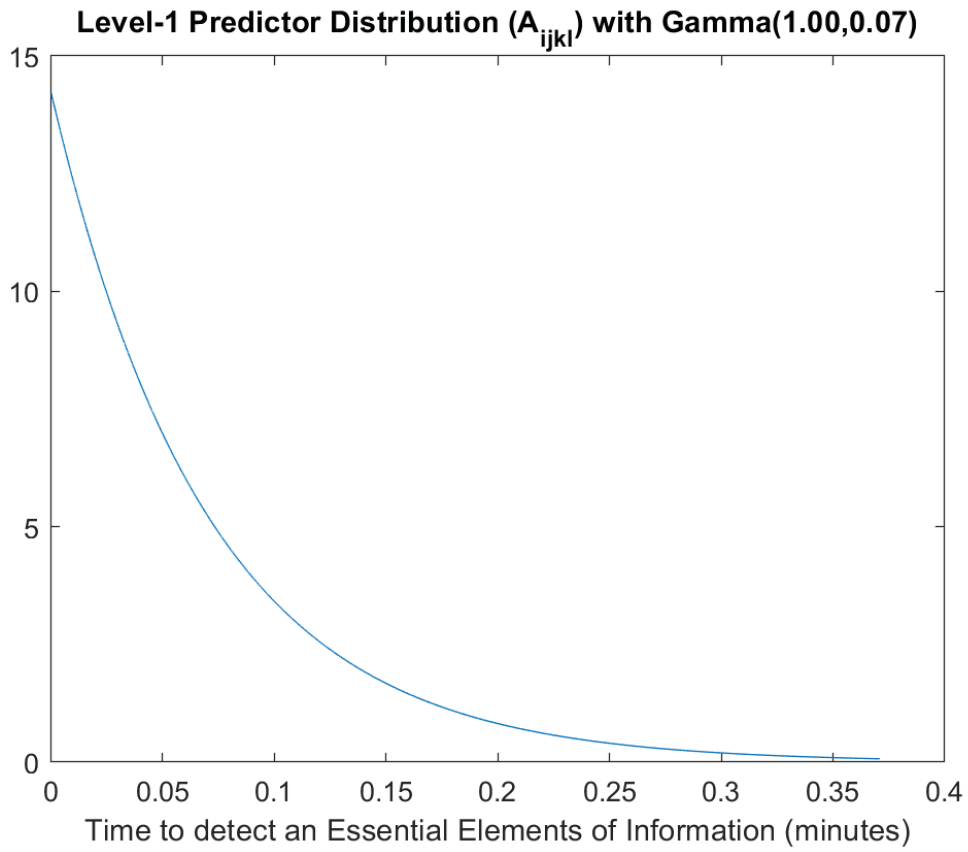


**Figure 53. Level-1 predictor distribution ($\mathbf{A}_{ijkl}$)**

The Level-3 predictor, $W_{ijkl}$, is the time to create a product with customer request in minutes. The data follows a gamma distribution such that the median is 3 minutes (Equation 37) and almost all the EEIs (0.999) are detected within 10 minutes (Equation 38). These properties are given by:

$$\int_0^3 \frac{1}{\Gamma(\alpha)\beta^\alpha} x^{\alpha-1} e^{-x/\beta} dx = 0.50, \tag{37}$$

$$\int_0^{10} \frac{1}{\Gamma(\alpha)\beta^\alpha} x^{\alpha-1} e^{-x/\beta} dx = 0.999. \tag{38}$$

Solving for $\alpha$ and $\beta$, the approximated gamma distribution is $Gamma(3.0, 1.11)$, (Figure 55), such that:

$$\int_0^5 \frac{1}{\Gamma(3)1.11^3} x^{3-1} e^{-x/1.11} dx = \int_0^5 \frac{1}{(2)1.11^3} x^2 e^{-x/1.11} dx = 0.507,$$

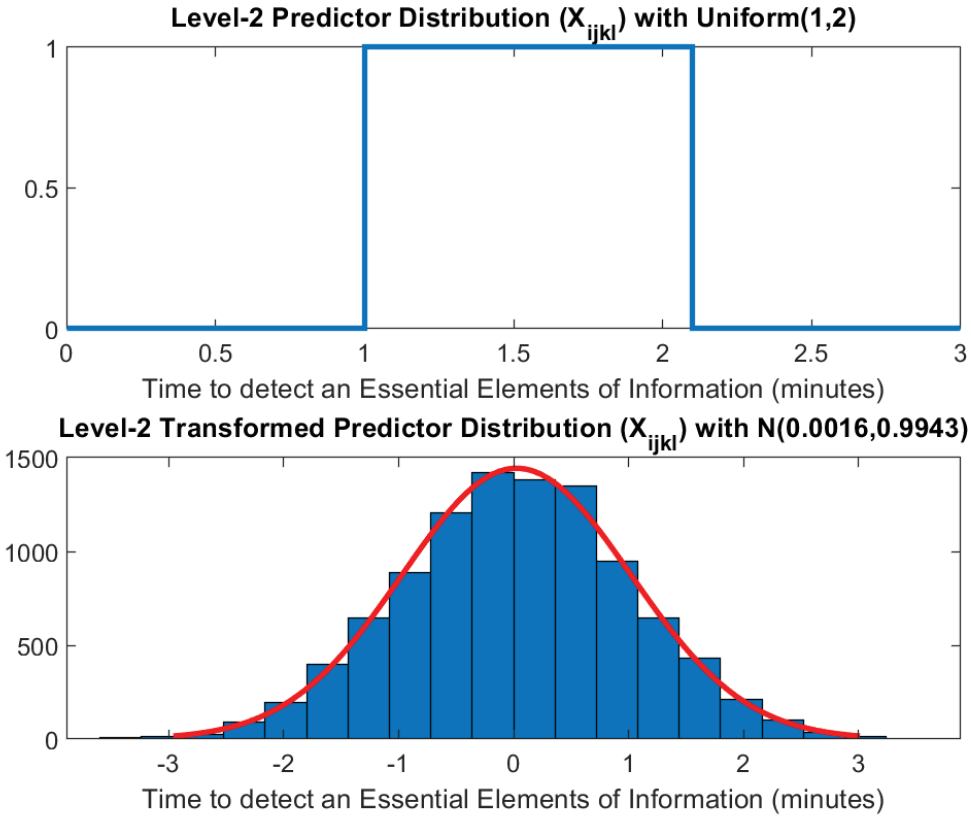


**Figure 54. Level-2 predictor distribution ($\mathbf{X}_{ijkl}$)**

$$\int_0^{20} \frac{1}{\Gamma(3)1.11^3} x^{3-1} e^{-x/1.11} dx = \int_0^{20} \frac{1}{(2)1.11^3} x^2 e^{-x/1.11} dx = 0.994.$$

To approximate a normal distribution, 10,000 $Gamma(3.0, 1.11)$ iterations were run and the Box-Cox transformation with $\lambda = 1.444$ was found (Figure 55) such that:

$$Box - Cox_{Gamma(3.0,1.11)} = \frac{y_{Gamma(3.0,1.11)}{}^{1.444} - 1}{0.61599}. \tag{39}$$

Therefore, the transformed Level-3 predictor distribution is $W_{ijkl} \sim N(-1.49, 0.0045)$, as given in Table 32.

The Level-4 predictor, $Z_{ijkl}$, is the time to submit and perform quality control of a product in minutes. The data follows a normal distribution $Z_{ijkl} \sim N(10, \sigma^2)$, (Figure 56),

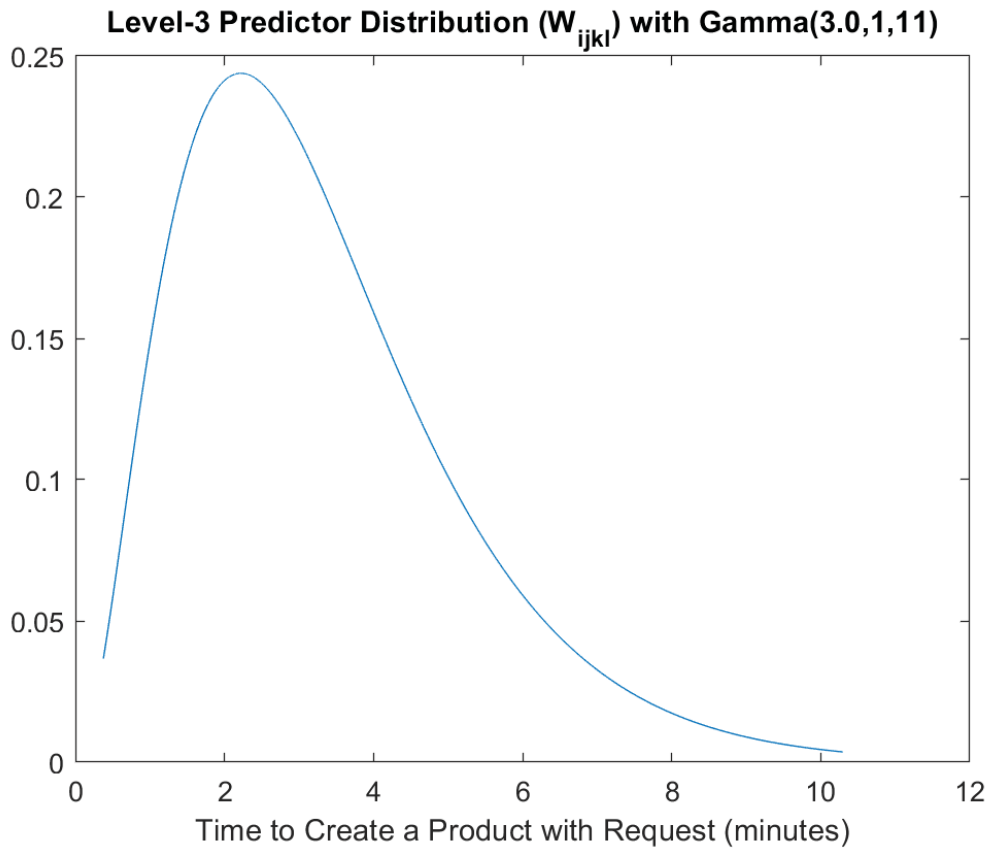


**Figure 55. Level-3 predictor distribution ($\mathbf{W}_{ijkl}$)**

such that the data within three standard deviations, $3\sigma$, of the mean account for about 99.7% of all the time to perform quality control of the product. That is:

$$\begin{aligned} P(-3 \leq z \leq 3) = P(-3 \leq \frac{z-10}{\sigma} \leq 3) &= 0.997 \\ \implies P(-3\sigma \leq z - 10 \leq 3\sigma) &= 0.997 \\ \implies P(-3\sigma + 10 \leq z \leq 3\sigma + 10) &= 0.997. \end{aligned}$$

Since $Z_{ijkl} \sim N(10, \sigma^2)$, this implies

$$P(-3\sigma + 10 \leq z \leq 3\sigma + 10) = \int_{-3\sigma}^{3\sigma+10} \frac{1}{\sqrt{2\pi}} e^{-\frac{(z-10)^2}{2}} dx = 0.997 \tag{40}$$

and $\sigma$ is approximately 4.25. Therefore, the Level-4 predictor distribution is

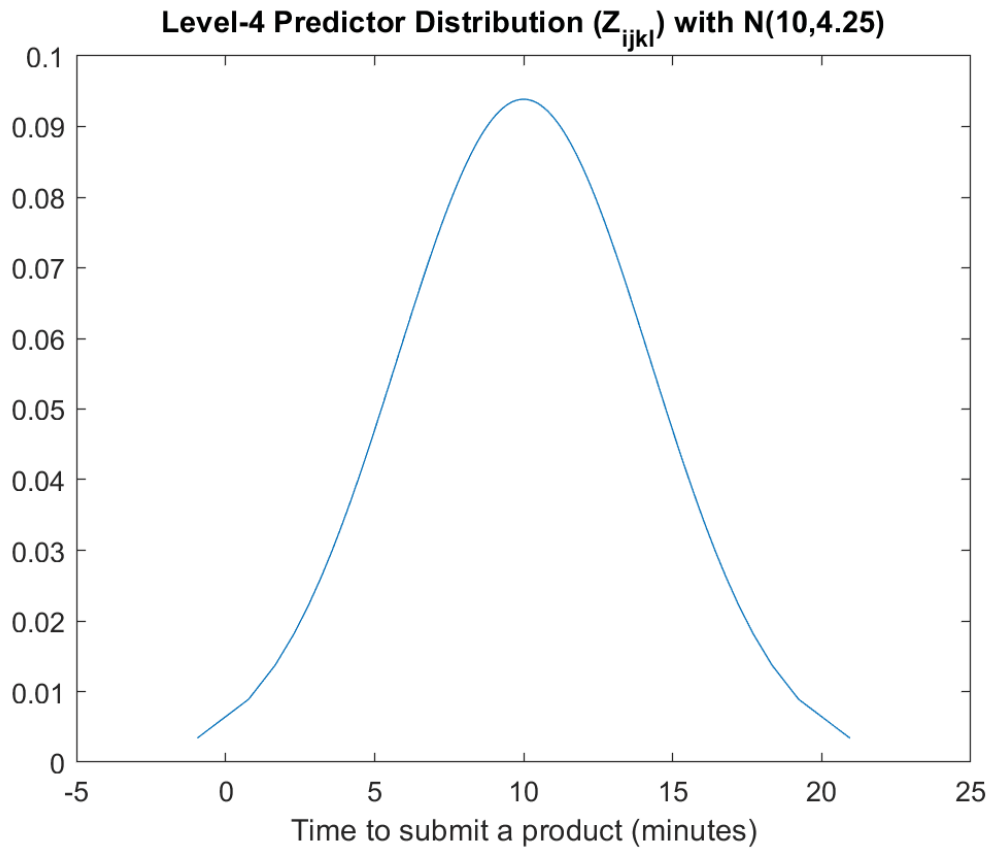


**Figure 56. Level-4 predictor distribution ($\mathbf{Z}_{ijkl}$)**

$Z_{ijkl} \sim N(10, 18.06)$, as given in Table 32.

The response, $Y_{ijkl}$, is the total time to complete and submit a product to a customer. The data follows a gamma distribution such that the median is 8 minutes (Equation 41) and total time is within 30 minutes (Equation 42). The following distributions, respectively, are:

$$\int_0^8 \frac{1}{\Gamma(\alpha)\beta^\alpha} x^{\alpha-1} e^{-x/\beta} dx = 0.50, \tag{41}$$

$$\int_0^{30} \frac{1}{\Gamma(\alpha)\beta^\alpha} x^{\alpha-1} e^{-x/\beta} dx = 0.999. \tag{42}$$

The approximated gamma distribution is $Gamma(3.0, 3.0)$, (Figure 57), such that:

$$\int_0^8 \frac{1}{\Gamma(3)3^3} x^{3-1} e^{-x/3} dx = \int_0^8 \frac{1}{54} x^2 e^{-x/3} dx = 0.498,$$

$$\int_0^{30} \frac{1}{\Gamma(3)3^3} x^{3-1} e^{-x/3} dx = int_0^{30} \frac{1}{54} x^2 e^{-x/3} dx = 0.997.$$

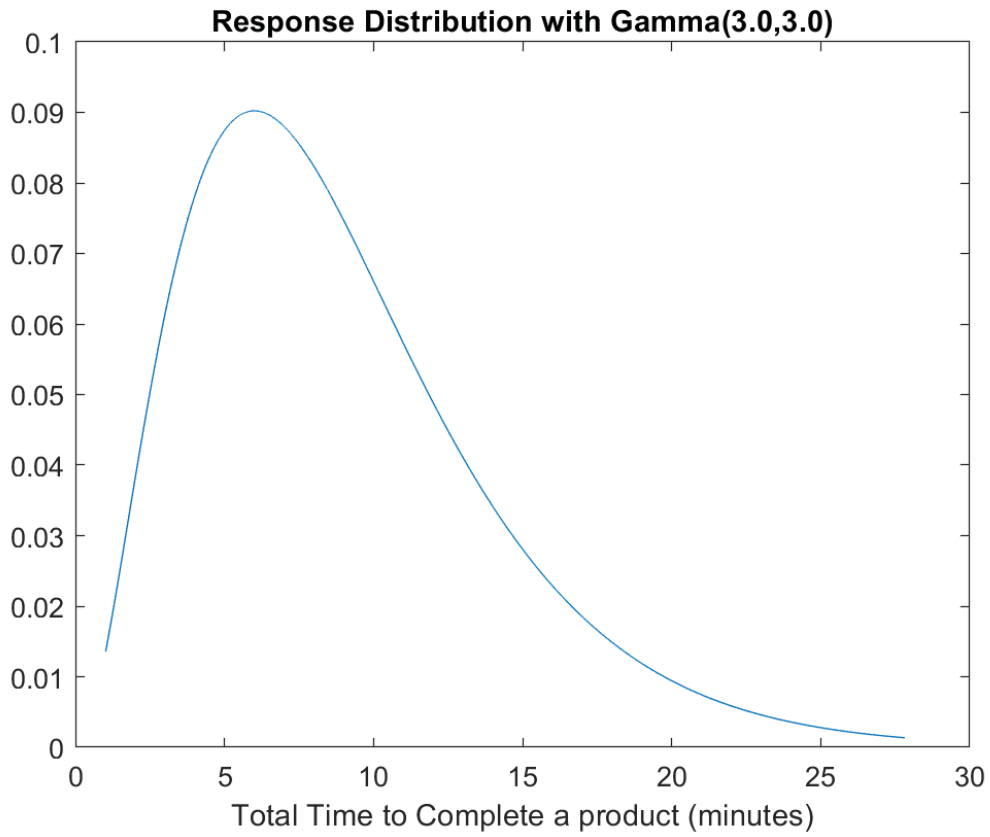


**Figure 57. Response distribution ($\mathbf{Y}_{ijkl}$)**

To approximate a normal distribution, 10,000 $Gamma(3.0, 3.0)$ iterations were run and the Box-Cox transformation with $\lambda = 1.022$ (Figure 57) was found such that:

$$Box - Cox_{Gamma(3.0,3.0)} = \frac{y_{Gamma(3.0,3.0)}{}^{1.022} - 1}{0.95856}. \tag{43}$$

Therefore, the transformed response distribution is $Y_{ijkl} \sim N(0.025, 0.0064)$, as given in Table 32.

The distributions (Equation 36, 39, 40), derived parameter standard errors (Equations

27, 30), and power equation (Equation 19) are used to determine the required sample sizes needed per level for a Level-3 and Level-4 DCGS HLM to achieve minimum power of at least 0.80 for both the expert and novice DCGS analysts. The minimum sample sizes per level are compared to the known population sample sizes and whether sample size extrapolation is necessary such as in Research Objective 2.

### Level-3 Notional DCGS FMV HLM Example.

The Level-3 HLM DCGS FMV HLM is

$$\begin{aligned} Y_{ijk} &= \gamma_{000} + \gamma_{010}X_{ijk} + \gamma_{001}W_{ijk} + \gamma_{011}X_{ijk}W_{ijk} + \gamma_{100}A_{ijk} \\ &\quad + \gamma_{101}A_{ijk}W_{ijk} + \gamma_{110}A_{ijk}X_{ijk} + \gamma_{111}A_{ijk}X_{ijk}W_{ijk} + u_{11k}A_{ijk}X_{ijk} \\ &\quad + u_{00k} + u_{01k}X_{ijk} + u_{10k}A_{ijk} + r_{1jk}A_{ijk} + r_{0jk} + e_{ijk}. \end{aligned} \tag{44}$$

The power equation, $z_\pi \approx 1 - \Phi\left(\frac{\hat{\gamma}-\gamma}{s.e.(\hat{\gamma})} + z_{1-\alpha/2}\right)$, first introduced in Equation 19, of a Level-3 notional DCGS HLM example is derived from the estimated effect size, significance level, total sample size ($N = ngh$), and the parameter standard errors. Based on the current DCGS community, there at most $N = (5)(8)(5) = 200$ total samples available with which to build an HLM. In order to find the associated power for varying estimated effect sizes (0.1, 0.3, and 0.7), recall:

$$s.e.(\hat{\gamma}) = \begin{bmatrix} \sqrt{\frac{\sigma^2_{Level-3}}{N}} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \sqrt{\frac{\sigma^2_{Level-3}}{N\sigma^2_A}} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \sqrt{\frac{\sigma^2_{Level-3}}{N\sigma^2_X}} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \ddots & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \sqrt{\frac{\sigma^2_{Level-3}}{N\sigma^2_A\sigma^2_W}} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \sqrt{\frac{\sigma^2_{Level-3}}{N\sigma^2_X\sigma^2_W}} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{\frac{\sigma^2_{Level-3}}{N\sigma^2_A\sigma^2_W A}} \end{bmatrix},$$

which was first derived in Equation 27, and restated here. Power is derived based on the following conditions:

- Sample size $N = 200$;
- Assumed estimated effect sizes $\hat{\gamma} - \gamma = 0.1, 0.3, 0.7$;
- Derived predictor distributions by level (Equations 36, 39);
- Variance of $\mathbf{Y}$ equal to $\sigma^2_{Level-3} = \gamma^2_{010}\sigma^2_X + \gamma^2_{001}\sigma^2_W + \gamma^2_{011}\sigma^2_X\sigma^2_W + \gamma^2_{100}\sigma^2_A + \gamma^2_{101}\sigma^2_A\sigma^2_W + \gamma^2_{110}\sigma^2_A\sigma^2_X + \gamma^2_{111}\sigma^2_A\sigma^2_X\sigma^2_W + \sigma^2_u\sigma^2_A\sigma^2_X + \sigma^2_u + \sigma^2_u\sigma^2_X + \sigma^2_u\sigma^2_A + \sigma^2_r\sigma^2_A + \sigma^2_r + \sigma^2_e$;
- Level-3 HLM error variance by level for the expert analysts model ($\sigma^2_e = \sigma^2_r = \sigma^2_u = 1.0$) and novice analysts model ($\sigma^2_e = \sigma^2_r = \sigma^2_u = 2.0$).

**Table 33. Level-3 AF DCGS FMV power table for estimated effect sizes 0.1, 0.3, 0.7 and sample size N = 200.**

| Level-3 DCGS FMV Power Table | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Effect Size | | | | | |
| Parameter | Association | | Expert Analysts | | | Novice Analysts | | |
| $\gamma_{ijk}$ | Level Predictor Variable | Level Representation in Time (minutes) | 0.1 | 0.3 | 0.7 | 0.1 | 0.3 | 0.7 |
| $\gamma_{000}$ | Grand Intercept | | 0.04 | 0.07 | 0.17 | 0.03 | 0.05 | 0.11 |
| $\gamma_{001}$ | Level-3 $W_{ijkl}$ | Create a product with request | 0.68 | **1.00** | **1.00** | 0.41 | **1.00** | **1.00** |
| $\gamma_{010}$ | Level-2 $X_{ijkl}$ | Capture a callout in chat | 0.04 | 0.07 | 0.17 | 0.03 | 0.05 | 0.11 |
| $\gamma_{011}$ | Level2, Level-3 $X_{ijkl}W_{ijkl}$ | Capture a callout in chat and create a product with request | 0.68 | **1.00** | **1.00** | 0.41 | **1.00** | **1.00** |
| $\gamma_{100}$ | Level-1 $A_{ijkl}$ | Detect an EEI | 0.03 | 0.03 | 0.04 | 0.03 | 0.03 | 0.04 |
| $\gamma_{101}$ | Level-1,Level3 $A_{ijkl}\ W_{ijkl}$ | Detect an EEI and create a product with request | 0.07 | 0.31 | **0.87** | 0.05 | 0.18 | 0.64 |
| $\gamma_{110}$ | Level-1,Level-2 $A_{ijkl}X_{ijkl}$ | Detect an EEI and capture a callout in chat | 0.03 | 0.03 | 0.04 | 0.03 | 0.03 | 0.04 |
| $\gamma_{111}$ | Level-1,Level-2,Level-3 $A_{ijkl}X_{ijkl}W_{ijkl}$ | Detect an EEI, capture a callout in chat, and create a product with request | 0.07 | 0.32 | **0.87** | 0.05 | 0.18 | 0.64 |

Based on the notional DCGS Level-3 HLM analysts size, the parameters that achieved minimum power of at least 0.80 were associated with the Level-3 predictor ($W_{ijkl}$) time in minutes to create a customer requested (the associated parameters are: $\gamma_{001}$, $\gamma_{011}$, $\gamma_{101}$, and $\gamma_{111}$). The parameter, $\gamma_{001}$, to create a product with request ($W_{ijkl}$), and the parameter, $\gamma_{011}$, to capture a callout in chat and create a product with request ($X_{ijkl}W_{ijkl}$) achieved power of 1.00 for medium and large estimated effect sizes (0.3 and 0.7) for both the expert and novice analysts models. Whereas, the parameter, $\gamma_{101}$, to detect an EEI and create a product with request ($A_{ijkl}W_{ijkl}$), and the parameter, $\gamma_{111}$, to detect an EEI, capture a callout in chat, and create a product with request ($A_{ijkl}X_{ijkl}W_{ijkl}$) achieved power of 0.87 for large estimated effect size (0.7) for only the expert analysts model (Table 33 and Figure 58). Similar to the power results of Research Objective 2, small estimated effect sizes, such as 0.1, did not achieve minimum sufficient power of 0.80.

All other parameters not associated with the third level ($\gamma_{000}, \gamma_{010}, \gamma_{100}, \gamma_{110}, \gamma_{111}$) require more sample sizes than the population to achieve sufficient power of 0.80. This implies for the notional DCGS Level-3 HLM, re-sampling such as in Research Objective 2, is needed to achieve a minimum power of 0.80 for the specific parameters: the grand intercept, effects detecting an EEI, callouts in chat, and their interactions. Based on the findings of Research Objective 2, the current DCGS FMV community has enough sample sizes for extrapolation for the PED cells (Level-2) and units (Level-3) because the small sample size 10 individuals, 5 PED cells, and 3 units was extrapolated to 100 samples per level and the novice model achieved sufficient power for medium and large (0.3 and 0.7) estimated effect sizes. If 5 more analysts per PED could be obtained, then sufficient power of 0.80 can be achieved for the novice model. The samples per level for PED cells (Level-2) and units (Level-3) is larger than the small sample set by 3 and 2 sample sizes per level, respectively. If PED cells or units could be combined or grouped such that the analysts at Level-1 increased, then it is possible to achieve sufficient power for the novice model through re-sampling for all three levels of the Level-3 notional DCGS FMV HLM example.

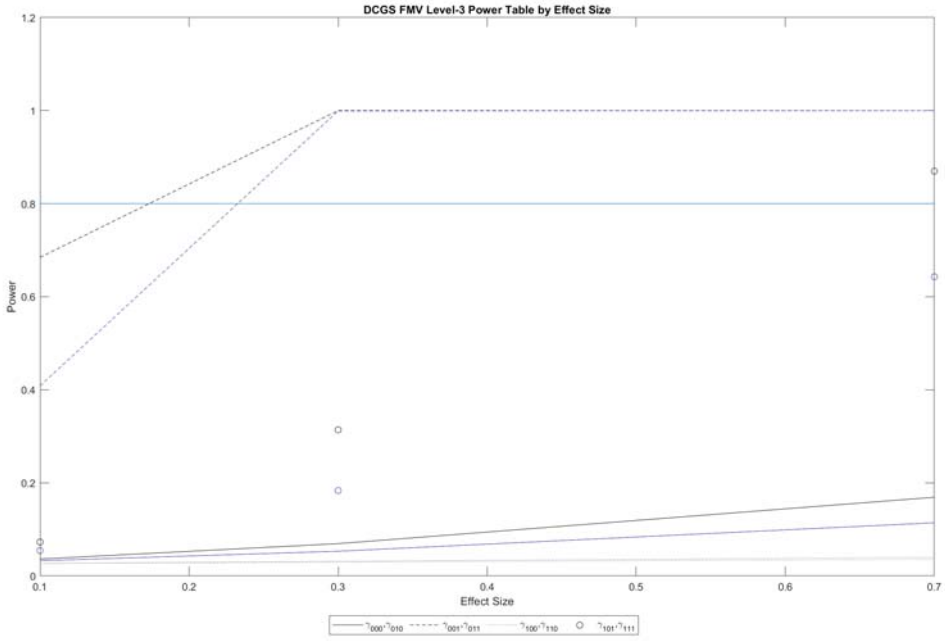


**Figure 58. Level-3 AF DCGS FMV power plot for estimated effect sizes 0.1, 0.3, 0.7 and sample size N=200 for the expert (black) and novice (blue) analysts models.**

### Level-4 Notional DCGS FMV HLM Example.

Similar to Level-3 DCGS HLM, the power equation, $z_\pi \approx 1 - \Phi\left(\frac{\hat{\delta}-\delta}{s.e.(\hat{\delta})} + z_{1-\alpha/2}\right)$, first introduced in Equation 19, of a Level-4 notional DCGS HLM example is derived from the estimated effect size, significance level, total sample size ($N = nghf$), and the parameter standard errors. Based on the population, there is at most $N = (5)(8)(5)(5) = 1,000$ total samples with which to build an HLM. In order to find the associated power for varying estimated effect sizes (0.1, 0.3, and 0.7), recall:

$$s.e.(\hat{\delta}) = \begin{bmatrix} \sqrt{\frac{\sigma^2_{Level-4}}{N}} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & \sqrt{\frac{\sigma^2_{Level-4}}{N\sigma^2_A}} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & \sqrt{\frac{\sigma^2_{Level-4}}{N\sigma^2_X}} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & \ddots & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & \sqrt{\frac{\sigma^2_{Level-4}}{N\sigma^2_A\sigma^2_W\sigma^2_Z}} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & \sqrt{\frac{\sigma^2_{Level-4}}{N\sigma^2_X\sigma^2_W\sigma^2_Z}} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{\frac{\sigma^2_{Level-4}}{N\sigma^2_A\sigma^2_X\sigma^2_W\sigma^2_Z}}. \end{bmatrix},$$

which was first derived in Equation 30, and restated here. Power is derived based on the following conditions:

- Sample size $N = 1,000$;
- Assumed estimated effect sizes $\hat{\delta} - \delta = 0.1, 0.3, 0.7$;
- Derived predictor distributions by level (Equations 36, 39, 40);
- Variance of $\mathbf{Y}$ equal to

  $$\sigma^2_{Level-4} = \delta^2_{1000}\sigma^2_A + \delta^2_{0100}\sigma^2_X + \delta^2_{0010}\sigma^2_W + \delta^2_{0001}\sigma^2_Z + \delta^2_{1100}\sigma^2_A\sigma^2_X + \delta^2_{1010}\sigma^2_A\sigma^2_W + \delta^2_{1001}\sigma^2_A\sigma^2_Z + \delta^2_{0110}\sigma^2_X\sigma^2_W + \delta^2_{0101}\sigma^2_X\sigma^2_Z + \delta^2_{0011}\sigma^2_W\sigma^2_Z + \delta^2_{1110}\sigma^2_A\sigma^2_X\sigma^2_W + \delta^2_{1101}\sigma^2_A\sigma^2_X\sigma^2_Z + \delta^2_{1011}\sigma^2_A\sigma^2_W\sigma^2_Z + \delta^2_{0111}\sigma^2_X\sigma^2_W\sigma^2_Z + \delta^2_{1111}\sigma^2_A\sigma^2_X\sigma^2_W\sigma^2_Z + \sigma^2_r + \sigma^2_u + \sigma^2_v + \sigma^2_r\sigma^2_A + \sigma^2_u\sigma^2_A + \sigma^2_u\sigma^2_X + \sigma^2_u\sigma^2_A\sigma^2_X + \sigma^2_v\sigma^2_A + \sigma^2_v\sigma^2_X + \sigma^2_v\sigma^2_W + \sigma^2_v\sigma^2_A\sigma^2_X + \sigma^2_v\sigma^2_A\sigma^2_W + \sigma^2_v\sigma^2_X\sigma^2_W + \sigma^2_v\sigma^2_A\sigma^2_X\sigma^2_W + \sigma^2_e;$$

- Level-4 HLM error variance by level for the expert analysts model

  $(\sigma^2_e = \sigma^2_r = \sigma^2_u = \sigma^2_v = 1.0)$ and the novice analysts model

  $(\sigma^2_e = \sigma^2_r = \sigma^2_u = \sigma^2_v = 2.0)$.

**Table 34. Level-4 AF DCGS FMV power table for estimated effect sizes 0.1, 0.3, 0.7 and sample size N = 1,000.**

| Level-4 DCGS FMV Power Table | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Effect Size | | | | | |
| Parameter | Association | | Expert Analysts | | | Novice Analysts | | |
| $\delta_{ijkl}$ | Level Predictor Variable | Level Representation in Time (minutes) | 0.1 | 0.3 | 0.7 | 0.1 | 0.3 | 0.7 |
| $\delta_{0000}$ | Grand Intercept | | 0.05 | 0.10 | 0.15 | 0.04 | 0.08 | 0.13 |
| $\delta_{1000}$ | Level-1 $A_{ijkl}$ | Detect an EEI | 0.03 | 0.03 | 0.04 | 0.03 | 0.03 | 0.03 |
| $\delta_{0100}$ | Level-2 $X_{ijkl}$ | Capture a callout in a chat | 0.05 | 0.10 | 0.15 | 0.04 | 0.08 | 0.13 |
| $\delta_{0010}$ | Level-3 $W_{ijkl}$ | Create a product with request | **0.98** | **1.00** | **1.00** | **0.84** | **1.00** | **1.00** |
| $\delta_{0001}$ | Level-4 $Z_{ijkl}$ | Perform quality control of a product | 0.03 | 0.04 | 0.04 | 0.03 | 0.03 | 0.04 |
| $\delta_{1100}$ | Level-1, Level-2 $A_{ijkl}X_{ijkl}$ | Detect an EEI and capture callout in a chat | 0.03 | 0.03 | 0.04 | 0.03 | 0.03 | 0.04 |
| $\delta_{1010}$ | Level-1, Level-3 $A_{ijkl}W_{ijkl}$ | Detect an EEI and create a product with request | 0.13 | 0.53 | **0.81** | 0.09 | 0.36 | 0.73 |
| $\delta_{1001}$ | Level-1, Level-4 $A_{ijkl}Z_{ijkl}$ | Detect an EEI and perform quality control of a product | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| $\delta_{0110}$ | Level-2, Level-3 $X_{ijkl}W_{ijkl}$ | Capture a callout in a chat and create a product with request | **0.98** | **1.00** | **1.00** | **0.84** | **1.00** | **1.00** |
| $\delta_{0101}$ | Level-2, Level-4 $X_{ijkl}Z_{ijkl}$ | Capture a callout in chat and perform quality control of a product | 0.03 | 0.04 | 0.04 | 0.03 | 0.03 | 0.04 |
| $\delta_{0011}$ | Level-3, Level-4 $W_{ijkl}Z_{ijkl}$ | Create a product with request and perform quality control of a product | 0.16 | 0.64 | **0.90** | 0.10 | 0.45 | **0.83** |
| $\delta_{1110}$ | Level-1, Level-2, Level-3 $A_{ijkl}X_{ijkl}W_{ijkl}$ | Detect an EEI, capture a callout in a chat, and create a product with request | 0.13 | 0.53 | **0.81** | 0.09 | 0.36 | 0.73 |
| $\delta_{1101}$ | Level-1, Level-2, Level-4 $A_{ijkl}X_{ijkl}Z_{ijkl}$ | Detect an EEI, capture a callout in a chat, and perform quality control of a product | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| $\delta_{1011}$ | Level-1, Level-3, Level-4 $A_{ijkl}W_{ijkl}Z_{ijkl}$ | Detect an EEI, create a product with request, and perform quality control of a product | 0.04 | 0.07 | 0.10 | 0.03 | 0.06 | 0.09 |
| $\delta_{0111}$ | Level-2, Level3, Level4 $X_{ijkl}W_{ijkl}Z_{ijkl}$ | Capture a callout in a chat, create a product with request, and perform quality control of a product | 0.16 | 0.64 | **0.90** | 0.10 | 0.45 | **0.84** |
| $\delta_{1111}$ | Level-1, Level-2, Level3, Level4 $A_{ijkl}X_{ijkl}W_{ijkl}Z_{ijkl}$ | Detect an EEI, capture a callout in a chat, create a product with request, and perform quality control of a product | 0.04 | 0.07 | 0.10 | 0.03 | 0.06 | 0.09 |

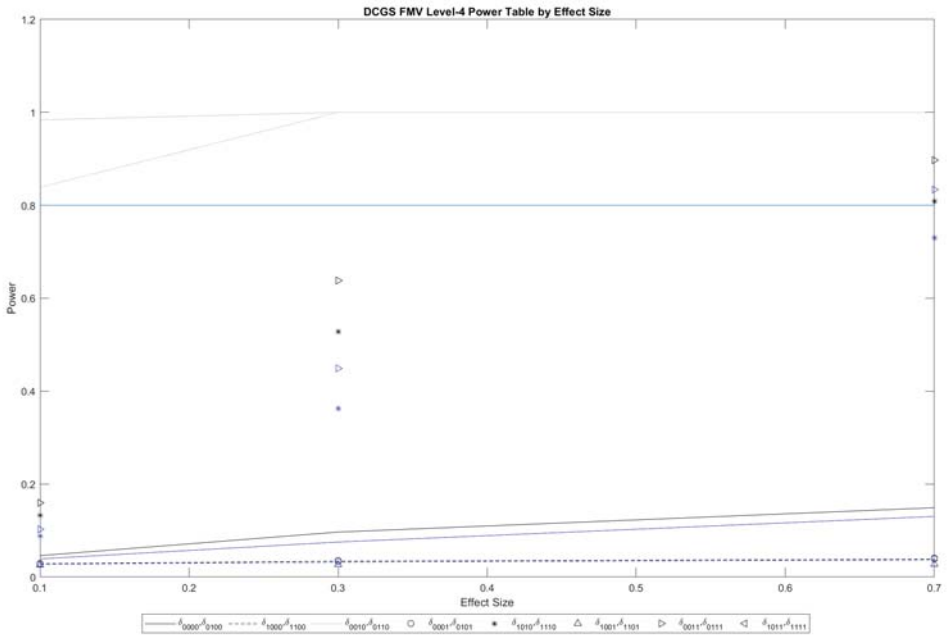


**Figure 59. Level-4 AF DCGS FMV power plot for estimated effect sizes 0.1, 0.3, 0.7 and sample size N=1,000 for the expert (black) and novice (blue) analysts models.**

Similar to Level-3, based on the current DCGS Level-4 HLM community size, the parameters that achieved minimum sufficient power of at least 0.80 were associated with Level-3 predictor, $W_{ijkl}$, time in minutes to create a customer requested product (the associated parameters are: $\delta_{0010}$, $\delta_{1010}$, $\delta_{0110}$, $\delta_{0110}$, $\delta_{0011}$, $\delta_{1110}$, and $\delta_{0111}$). The parameter, $\delta_{0010}$, to create a product with request ($W_{ijkl}$), and the parameter, $\delta_{0110}$, to capture a callout in a chat and create a product with request ($X_{ijkl}W_{ijkl}$) achieved sufficient power greater than 0.80 for low, medium, and high estimated effect sizes (0.1, 0.3, 0.7) for both the expert and novice analysts models (Table 34 and Figure 59). The parameter, $\delta_{1010}$, to detect an EEI and create a product with request ($A_{ijkl}W_{ijkl}$), and the parameter, $\delta_{1110}$, to detect an EEI, capture a callout in a chat, and create a product with request ($A_{ijkl}X_{ijkl}W_{ijkl}$) achieved power of 0.81 for large estimated effect size (0.7) for only the expert analysts model and the parameter, $\delta_{0011}$, to create a product with request and perform quality control of a product ($W_{ijkl}Z_{ijkl}$), and the parameter, $\delta_{0111}$, to capture a callout in chat, create a product with requests, and perform quality control of a product ($X_{ijkl}W_{ijkl}Z_{ijkl}$) achieved power greater than 0.80 for large estimated effect size for both the expert and novice analysts models.

All other parameters, not associated with the third level ($\delta_{0000}$, $\delta_{0100}$, $\delta_{0001}$, $\delta_{1100}$, $\delta_{1001}$, $\delta_{0101}$, $\delta_{1101}$, $\delta_{1011}$, $\delta_{1111}$), except $\delta_{1111}$, required more sample sizes than the current sample size to achieve sufficient power of 0.80. This implies for the notional DCGS Level-4 HLM re-sampling is needed to achieve a minimum power of 0.80 for the specific parameters: the grand mean, capture a callout in chat, perform quality control of a product, and their interactions.

**Summary.**

The current DCGS FMV community consists of 1,000 analysts. Based on the current number of analysts and transformed distributions, in general, for medium and large estimated effect sizes, parameters associated with the Level-3 predictor, $W_{ijkl}$ had power of at least 0.80. If these specific parameters, for both notional DCGS FMV Level-3 and

Level-4 HLMs, were of interest, then there is sufficient sample available based the current number analysts.

For the Level-3 and Level-4 HLM parameters that did not achieve a minimum power of at least 0.80, re-sampling to larger sample sizes at each level could be applied to achieve minimum sufficient power, because the sample sizes required are larger than the current DCGS FMV community. This application showed through simulation, that based on SME information, multi-level sample size recommendations could be provided to an operational customer for parameters associated with level predictors of interest.

# VI. Discussion

The complex interrelated variability of the Level-4 HLM exists in many operational setting including the small population of the Air Force Distributed Common Ground System Full Motion Video (AF DCGS FMV) community. This nested data structure of 1,000 analysts can be represented by a Level-4 Hierarchical Linear Model (HLM). The data requirements and collection process of multi-level models, such as the DCGS FMV human-machine system, can be understood through the development of sample size requirements and small sample size re-sampling to larger sample sizes per each level when parameter estimation does not meet sufficient minimum power for statistical testing.

The parameter estimates of the Level-2, Level-3, and Level-4 HLMs are based on the associated parameter standard errors derived in this research and an assumption of independence between levels. The sample size criteria for sufficient statistical power are based on a variety of realistic operational scenarios for Level-2, Level-3 and Level-4 HLMs. The scenarios are defined such that the Level-1 predictor variability is greater than or equal to the variability of the groups, units, and organizations. The initial error values were chosen similar to existing Level-2 literature such that when the intraclass correlation coefficients were calculated, the values were generally moderate and largest at the lowest level. Small, medium, and large estimated effect sizes were considered for comparison to previous literature and for sample size recommendations.

Sample size recommendations for Level-2 HLMs parameter estimation previously existed, but recommendations have not been provided or extended to Level-3 and Level-4 HLMs. One of the most common Level-2 sample size recommendations is the general rule of thumb, 30 sample sizes per Level-1 and Level-2 to achieve minimum sufficient statistical power. This research found that for a Level-2 HLM, minimum sufficient power was not met when using only 30 samples sizes per level for small estimated effect size (0.1), but for larger estimated effect sizes (0.3 and 0.7), 30 sample sizes per level was more than sufficient and almost doubled what was needed to achieve sufficient power. This work

applied the general rule of thumb to the Level-3 and Level-4 HLMs variance scenarios considered, and found that 30 sample sizes per level was also more than sufficient.

In addition to sample size recommendations when compared to the general rule of thumb, this research compared variance values for varying level predictor and level error terms for Level-2, Level-3, and Level-4 HLMs. For all HLMs considered, this research found that as the estimated effect size increased, the number of sample sizes required to achieve minimum power per level decreased. That is, the stronger the strength (estimated effect size) between the parameter and system performance (response), the fewer sample sizes needed to achieve adequate power.

When the assumed error variance doubled for each level, the required sample sizes to achieve minimum statistical power increased. In other words, if HLMs of novice analyst models versus the expert analyst models were assessed, and the novice analyst models had double the variability of the expert analyst models, then the number of sample sizes required to achieve minimum statistical power in modeling would be more for the novice analyst models for all predictor and error variance scenarios considered.

Also, if the predictor variance at Level-1 is less than the higher levels (Level-2, Level-3, and Level-4), then the sample sizes per level required depends on the initial error variability and parameter of interest. This implies that the variability of the individual level (analyst) tasking was influential and affected the overall performance of the system with regards to sample sizes needed. Whereas, if the predictor variance at the higher levels decreased, the conclusions were more consistent and the sample sizes required per level generally increased for all predictors, but the pure intercepts. These samples size requirements assumed Independence between levels.Sample size criteria may differ when dependence is included.

Using the power results and sample size requirements derived for Research Objective 1, operationally realistic small sample size combinations were considered for re-sampling in order to meet sample size requirements. The small sample combinations considered reflect achievable sample sizes for each level based on small population sizes, cost, and limited

access to operational environments. For the specific predictor and error variance scenarios assumed, when the parameters of Level-2 and Level-3 HLMs did not achieve minimum sufficient statistical power for the small sample sizes considered, the small sample sizes were re-sampled to larger samples per each level of the HLM. For both Level-2 and Level-3 HLMs, in general, when small sample sizes were re-sampled to larger sample sizes, minimum sufficient statistical power was achieved for medium and high estimated effect sizes (0.3 and 0.7). Though as the re-sampled sample size increased per each level, not only did the average absolute relative bias of the parameter estimates increase, but the computation time exponentially increased as well. The re-sampling procedure introduced in this research is not limited to Level-3 HLMs and can be applied to higher levels.

To understand human and machine workloads of a system, this research can be applied to real-world multi-level applications if the predictor and error distributions are known estimates or have been observed by SMEs. For example, in Research Objective 3, the notional example of the AF DCGS FMV community distributions were computed based on SME observations and analyst products for both the novice and expert analyst models. For this specific example, to assess human-machine system performance and achieve minimum statistical power, the necessary sample sizes required per level for almost all parameters exceeded the population. For instance, power could not be achieved for the Level-3 HLM DCGS FMV analysis because for equal sample sizes per level, a minimum of 6 samples per level were required, for a total of $6 \times 6 \times 6 = 216$ observations. However, the population consists of 5 analysts per PED cell, 8 PED cells per unit, and 5 units, which means the number of analysts and units required for assessment is greater than the population allows and therefore could not be obtained. The analysis and sample size requirements should focused on the model parameters of interest. For instance, if the group and unit variables are of importance only, then power should be assessed for these levels. If these specific parameters of interest do not have enough statistical sufficient power, then the re-sampling procedure developed within this research could be applied. Determining the level parameters of interest could decrease the number of sample sizes per

level required and the number of re-samples needed to achieve statistical sufficient power.

If the Level-3 DCGS FMV sub-sample sizes per level were determined and the re-sampling procedure applied, sufficient statistical power could be achieved. Prior to this research, only subjective recommendations could be made to a customer, whereas now, a more in-depth simulation could be proposed that requires only limited resources, analysts' time, and could be done in a non-invasive manner.

As stated, the derived sample size equations can be generalized to any level of an HLM. In addition to obtaining the recommended sample sizes through experimentation and applying the re-sampling procedure to the DCGS FMV Level-3 HLM, future work would be to develop more robust software that could handle larger multi-level models and the re-sampling procedure (i.e., the DCGS FMV Level-4 HLM). In addition, this research considered HLMs with one predictor at each level and no predictor interactions at each level (only between levels). Though this research assumed that in each level, predictor effects are additive and therefore may be represented through one predictor variable at each level, this research could be extended to include additional predictor interactions within levels.

Finally, assessment of human-machine system performance is of most importance to the Air Force and the need for autonomous systems is growing. Due to rising operational costs, changing missions, small populations, complex environments, and absence of necessary data, the need for HLM assessments through simulations are crucial. Prior sample size recommendations and small sample size re-sampling are a step towards advancing the Air Force's capabilities and mission understanding for human-machine based systems.

# VII. Appendix

## Appendix A. Estimation of Maximum Likelihood (ML) Model.

The simple linear model can be rewritten as $\mathbf{Y_{Nx1}} = \mathbf{M_{Nxp}}\mu_{\mathbf{px1}} + \varepsilon_{\mathbf{Nx1}}$. Where $N$ is the total sample size, $p$ denotes the number of coefficients in the model, and $\varepsilon \sim N(0, \Sigma)$ such that $\Sigma = \sigma^2_{level} I$.

### Likelihood.

The likelihood function, denoted $L$, of $\mu$ and $\Sigma$ is

$$L = L(\mu, \mathbf{\Sigma}|\mathbf{y}) = \frac{exp\left[-\frac{1}{2}(\mathbf{y} - \mathbf{M}\mu)'\mathbf{\Sigma}^{-1}(\mathbf{y} - \mathbf{M}\mu)\right]}{(2\pi\mathbf{\Sigma})^{\frac{1}{2}N}}$$

By maximizing $L$, the maximum likelihood estimates of $\mu$ and $\Sigma$ ($\hat{\mu}$ and $\hat{\Sigma}$, respectively) can be obtained. Note, that these estimates are more easily found using the log-likelihood where:

$$l = logL = -\frac{1}{2}Nlog(2\pi) - \frac{1}{2}Nlog|\mathbf{\Sigma}| - \frac{1}{2}(\mathbf{y} - \mathbf{M}\mu)'\mathbf{\Sigma}^{-1}(\mathbf{y} - \mathbf{M}\mu).$$

Since $tr[\mathbf{ABC}] = tr[\mathbf{CAB}] = tr[\mathbf{BCA}]$, this implies

$$\begin{aligned}
l &= -\frac{1}{2}Nlog(2\pi) - \frac{1}{2}Nlog|\mathbf{\Sigma}| - \frac{1}{2}(\mathbf{y} - \mathbf{M}\mu)'\mathbf{\Sigma}^{-1}(\mathbf{y} - \mathbf{M}\mu) \\
&= -\frac{1}{2}Nlog(2\pi) + \frac{1}{2}Nlog|\mathbf{\Sigma}^{-1}| - \frac{1}{2}(\mathbf{y} - \mathbf{M}\mu)'\mathbf{\Sigma}^{-1}(\mathbf{y} - \mathbf{M}\mu) \\
&\propto -\frac{1}{2}Nlog(2\pi) + \frac{1}{2}Nlog|\mathbf{\Sigma}^{-1}| - \frac{1}{2}tr[(\mathbf{y} - \mathbf{M}\mu)'\mathbf{\Sigma}^{-1}(\mathbf{y} - \mathbf{M}\mu)] \\
&= -\frac{1}{2}Nlog(2\pi) + \frac{1}{2}Nlog|\mathbf{\Sigma}^{-1}| - \frac{1}{2}tr[\mathbf{\Sigma}^{-1}(\mathbf{y} - \mathbf{M}\mu)(\mathbf{y} - \mathbf{M}\mu)']
\end{aligned}$$

### ML Equations and Their Solutions.

To verify that the function $l$ has a local maximum at $(\hat{\mu}, \hat{\Sigma})$, the following three conditions must be satisfied:

1. Possible candidates for the ML estimates are found by setting the first-order partial derivatives to 0 and replacing $\mu$ and $\Sigma$ by the estimators $\hat{\mu}$ and $\hat{\Sigma}$, respectively. Since $\frac{\partial}{\partial \mathbf{A}}\mathbf{X}'\mathbf{A}\mathbf{X} = \frac{\partial}{\partial \mathbf{A}}tr[\mathbf{X}\mathbf{X}'\mathbf{A}] = [\mathbf{X}\mathbf{X}']' = \mathbf{X}\mathbf{X}'$, this implies

$$\begin{aligned}\frac{\partial l}{\partial \mu} &= 0 - 0 - \frac{1}{2}\left(\boldsymbol{\Sigma}^{-1}(\mathbf{y} - \mathbf{M}\mu)(-\mathbf{M}') + ((\boldsymbol{\Sigma}^{-1})'(\mathbf{y} - \mathbf{M}\mu)(-\mathbf{M}')\right) \\ &= -\frac{1}{2}\left(-2\mathbf{M}'\boldsymbol{\Sigma}^{-1}(\mathbf{y} - \mathbf{M}\mu)\right) \\ &= \mathbf{M}'\boldsymbol{\Sigma}^{-1}(\mathbf{y} - \mathbf{M}\mu).\end{aligned}$$

Setting equal to zero, this implies

$$\begin{aligned}0 &= \mathbf{M}'\hat{\boldsymbol{\Sigma}}^{-1}(\mathbf{y} - \hat{\mu}) \\ \Rightarrow 0 &= \mathbf{M}'\hat{\boldsymbol{\Sigma}}^{-1}\mathbf{y} - \mathbf{M}'\hat{\boldsymbol{\Sigma}}^{-1}\hat{\mu}.\end{aligned}$$

Therefore,

$$\hat{\mu} = (\mathbf{X}'\hat{\boldsymbol{\Sigma}}^{-1}\mathbf{M})^{-1}\mathbf{M}'\hat{\boldsymbol{\Sigma}}^{-1}\mathbf{y}.$$

Similarly,

$$\frac{\partial l}{\partial \boldsymbol{\Sigma}^{-1}} = 0 + \frac{N}{2}\boldsymbol{\Sigma} - \frac{1}{2}(\mathbf{y} - \mathbf{M}\mu)(\mathbf{y} - \mathbf{M}\mu)'.$$

Setting equal to zero, this implies

$$\begin{aligned}0 &= 0 + \frac{N}{2}\hat{\boldsymbol{\Sigma}} - \frac{1}{2}(\mathbf{y} - \mathbf{M}\hat{\mu})(\mathbf{y} - \mathbf{M}\hat{\mu})' \\ \Rightarrow \frac{N}{2}\hat{\boldsymbol{\Sigma}} &= \frac{1}{2}(\mathbf{y} - \mathbf{M}\hat{\mu})(\mathbf{y} - \mathbf{M}\hat{\mu})'.\end{aligned}$$

Therefore,

$$\hat{\boldsymbol{\Sigma}} = \frac{1}{N}(\mathbf{y} - \mathbf{M}\hat{\mu})(\mathbf{y} - \mathbf{M}\hat{\mu})'.$$

2. At least one second-order partial derivative is negative. The second-order partial derivative elements are:

$$\frac{\partial^2 l}{\partial \mu^2} = \frac{\partial}{\partial \mu}(\mathbf{M'\Sigma^{-1}y} - \mathbf{M'\Sigma^{-1}M}\mu) = -\mathbf{M'\Sigma^{-1}M} < 0,$$

since $\mathbf{M'}\sigma^{\mathbf{2}}_{\mathbf{level}}\mathbf{M} > 0$ $\mathbf{\Sigma} > 0$ and

$$\frac{\partial^2 l}{\partial \Sigma^2} = \frac{N}{2}\hat{\mathbf{\Sigma}} - \frac{1}{2}(\mathbf{y} - \mathbf{M}\hat{\mu})(\mathbf{y} - \mathbf{M}\hat{\mu})' = \frac{N}{2} - 0 = \frac{N}{2}$$

$$\frac{\partial^2 l}{\partial \Sigma \partial \mu} = \frac{\partial^2 l}{\partial \mu \partial \Sigma} = \frac{\partial l}{\partial \mu}(\frac{N}{2}\mathbf{\Sigma} - \frac{1}{2}(\mathbf{y} - \mathbf{M}\mu)(\mathbf{y} - \mathbf{M}\mu)') = -\frac{1}{2}(\mathbf{y} - \mathbf{M}\mu)(\mathbf{y} - \mathbf{M}\mu)') < 0$$

3. The Jacobian of the second-order partial derivative is positive. The Jacobian is:

$$\begin{vmatrix} \frac{\partial^2}{\partial \mu^2} l(\mu, \Sigma) & \frac{\partial^2}{\partial \mu \partial \Sigma} l(\mu, \Sigma) \\ \frac{\partial^2}{\partial \Sigma \partial \theta} l(\mu, \Sigma) & \frac{\partial^2}{\partial \Sigma^2} l(\mu, \Sigma) \end{vmatrix} = \begin{vmatrix} -\mathbf{X'\Sigma^{-1}X} & -\frac{1}{2}(\mathbf{y} - \mathbf{X}\mu)(\mathbf{y} - \mathbf{X}\mu)') \\ -\frac{1}{2}(\mathbf{y} - \mathbf{X}\mu)(\mathbf{y} - \mathbf{X}\mu)') & \frac{N}{2} \end{vmatrix}$$

$$= \frac{-NX\Sigma^{-1}X}{2} - (\frac{1}{2}(\mathbf{y} - \mathbf{X}\mu)(\mathbf{y} - \mathbf{X}\mu)'))^2 > 0$$

**Sampling Variances.**

The standard error of $\hat{\mu}$ is the square root of the variance of $\hat{\mu}$. That is

$$s.e.(\hat{\mu}) = \sqrt{Var(\hat{\mu})}$$

$$\begin{aligned} Var[\hat{\mu}] &= Var[(\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'\Sigma^{-1}y}] \\ &= Var[(\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'\Sigma^{-1}}(\mathbf{M}\mu + \varepsilon)] \\ &= Var[(\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'\Sigma^{-1}M}\mu + (\mathbf{M'\Sigma^{-1}M})^{-\mathbf{1}}\mathbf{M'\Sigma^{-1}}\varepsilon] \\ &= Var[(\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'\Sigma^{-1}M}\mu] + Var[(\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'\Sigma^{-1}}\varepsilon] \end{aligned}$$

such that $Var(\mu) = 0$. This implies

$= Var[0 + (\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'\Sigma^{-1}}\varepsilon]$

$= Var[(\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'\Sigma^{-1}}\varepsilon]$

$= ((\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'\Sigma^{-1}})Var[\varepsilon](\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'\Sigma^{-1}})'$

$= ((\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'\Sigma^{-1}})\mathbf{\Sigma}((\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'\Sigma^{-1}})'$

$= ((\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'})(\mathbf{\Sigma^{-1}\Sigma})((\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'\Sigma^{-1}})'$

such that $\Sigma$ is a diagonal matrix and $\Sigma^{-1}\Sigma = I_{N\times N}$. This implies

$= (\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'}I_{N\times N}((\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'\Sigma^{-1}})'$

$= (\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'}((\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'\Sigma^{-1}})'$

$= (\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'}(\mathbf{\Sigma'})^{-1}\mathbf{M}((\mathbf{M'\Sigma^{-1}M})')^{-1}$

since $\mathbf{\Sigma}$ is a diagonal matrix and symmetric such that $\Sigma' = \Sigma$. This implies

$= [(\mathbf{M'\Sigma^{-1}M})^{-1}\mathbf{M'\Sigma^{-1}M}]((\mathbf{M'\Sigma^{-1}M})')^{-1}$

$= ((\mathbf{M'\Sigma^{-1}M})')^{-1}$

since $(\mathbf{XA})' = \mathbf{A'X'}$ and $(\mathbf{A'})' = \mathbf{A}$. This implies

$= (\mathbf{M'}(\mathbf{\Sigma'})^{-1}\mathbf{M})^{-1}$

$= (\mathbf{M'\Sigma^{-1}M})^{-1}$

$= \mathbf{M}^{-1}\mathbf{\Sigma}(\mathbf{M'})^{-1}$

$= \mathbf{\Sigma M}^{-1}I(\mathbf{M'})^{-1}$

$= \mathbf{\Sigma M}^{-1}(\mathbf{M'})^{-1}$

$= \mathbf{\Sigma M}^{-1}(\mathbf{M'})^{-1}$

$= \mathbf{\Sigma}(\mathbf{M'M})^{-1}$

Therefore,

$$s.e.(\hat{\mu}) = \sqrt{Var(\hat{\mu})} = \sqrt{\mathbf{\Sigma}(\mathbf{M'M})^{-1}}$$

## Appendix B. Power Tables.

# Appendix B.1 Level-2 Power Tables

Table 60: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 9 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 11 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 13 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.25 | 0.27 | 0.28 | 0.36 | 0.43 |
| 15 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 17 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.25 | 0.31 | 0.33 | 0.36 | 0.45 | 0.54 |
| 19 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.34 | 0.36 | 0.39 | 0.49 | 0.58 |
| 21 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.63 |
| 23 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.43 | 0.46 | 0.57 | 0.67 |
| 25 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 27 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 29 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.31 | 0.35 | 0.40 | 0.47 | 0.51 | 0.55 | 0.67 | 0.77 |
| 30 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.36 | 0.41 | 0.49 | 0.53 | 0.56 | 0.68 | 0.78 |
| 35 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 40 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.68 | **0.80** | **0.88** |
| 50 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.42 | 0.45 | 0.47 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 55 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.43 | 0.46 | 0.48 | 0.51 | 0.53 | 0.59 | 0.65 | 0.74 | 0.78 | **0.82** | **0.91** | **0.96** |
| 60 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.36 | 0.39 | 0.42 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.68 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 80 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 100 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |

Table 61: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 9 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 11 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 13 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.25 | 0.27 | 0.28 | 0.36 | 0.43 |
| 15 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 17 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.25 | 0.31 | 0.33 | 0.36 | 0.45 | 0.54 |
| 19 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.34 | 0.36 | 0.39 | 0.49 | 0.58 |
| 21 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.63 |
| 23 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.43 | 0.46 | 0.57 | 0.67 |
| 25 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 27 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 29 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.31 | 0.35 | 0.40 | 0.47 | 0.51 | 0.55 | 0.67 | 0.77 |
| 30 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.36 | 0.41 | 0.49 | 0.53 | 0.56 | 0.68 | 0.78 |
| 35 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 40 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.68 | **0.80** | **0.88** |
| 50 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.42 | 0.45 | 0.47 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 55 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.43 | 0.46 | 0.48 | 0.51 | 0.53 | 0.59 | 0.65 | 0.74 | 0.78 | **0.82** | **0.91** | **0.96** |
| 60 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.36 | 0.39 | 0.42 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.68 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 80 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 100 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |

Table 62: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 9 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 11 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 13 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.25 | 0.27 | 0.28 | 0.36 | 0.43 |
| 15 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 17 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.25 | 0.31 | 0.33 | 0.36 | 0.45 | 0.54 |
| 19 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.34 | 0.36 | 0.39 | 0.49 | 0.58 |
| 21 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.63 |
| 23 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.43 | 0.46 | 0.57 | 0.67 |
| 25 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 27 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 29 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.31 | 0.35 | 0.40 | 0.47 | 0.51 | 0.55 | 0.67 | 0.77 |
| 30 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.36 | 0.41 | 0.49 | 0.53 | 0.56 | 0.68 | 0.78 |
| 35 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 40 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.68 | **0.80** | **0.88** |
| 50 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.42 | 0.45 | 0.47 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 55 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.43 | 0.46 | 0.48 | 0.51 | 0.53 | 0.59 | 0.65 | 0.74 | 0.78 | **0.82** | **0.91** | **0.96** |
| 60 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.36 | 0.39 | 0.42 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.68 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 80 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 100 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |

Table 63: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 9 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 11 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 13 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.25 | 0.27 | 0.28 | 0.36 | 0.43 |
| 15 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 17 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.25 | 0.31 | 0.33 | 0.36 | 0.45 | 0.54 |
| 19 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.34 | 0.36 | 0.39 | 0.49 | 0.58 |
| 21 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.63 |
| 23 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.43 | 0.46 | 0.57 | 0.67 |
| 25 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 27 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 29 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.31 | 0.35 | 0.40 | 0.47 | 0.51 | 0.55 | 0.67 | 0.77 |
| 30 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.36 | 0.41 | 0.49 | 0.53 | 0.56 | 0.68 | 0.78 |
| 35 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 40 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.68 | **0.80** | **0.88** |
| 50 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.42 | 0.45 | 0.47 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 55 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.43 | 0.46 | 0.48 | 0.51 | 0.53 | 0.59 | 0.65 | 0.74 | 0.78 | **0.82** | **0.91** | **0.96** |
| 60 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.36 | 0.39 | 0.42 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.68 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 80 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 100 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |

Table 64: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 7 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 9 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 11 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 13 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.21 | 0.25 |
| 15 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.23 | 0.28 |
| 17 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.26 | 0.31 |
| 19 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 21 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.16 | 0.17 | 0.21 | 0.22 | 0.24 | 0.30 | 0.37 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.39 |
| 25 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 27 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 29 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.40 | 0.48 |
| 30 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 35 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.37 | 0.46 | 0.55 |
| 40 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 50 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 55 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.74 |
| 60 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.37 | 0.41 | 0.49 | 0.53 | 0.56 | 0.69 | 0.78 |
| 80 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 100 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |

Table 65: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 7 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 9 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 11 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 13 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.21 | 0.25 |
| 15 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.23 | 0.28 |
| 17 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.26 | 0.31 |
| 19 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 21 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.16 | 0.17 | 0.21 | 0.22 | 0.24 | 0.30 | 0.37 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.39 |
| 25 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 27 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 29 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.40 | 0.48 |
| 30 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 35 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.37 | 0.46 | 0.55 |
| 40 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 50 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 55 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.74 |
| 60 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.37 | 0.41 | 0.49 | 0.53 | 0.56 | 0.69 | 0.78 |
| 80 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 100 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |

Table 66: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 7 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 9 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 11 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 13 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.21 | 0.25 |
| 15 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.23 | 0.28 |
| 17 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.26 | 0.31 |
| 19 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 21 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.16 | 0.17 | 0.21 | 0.22 | 0.24 | 0.30 | 0.37 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.39 |
| 25 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 27 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 29 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.40 | 0.48 |
| 30 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 35 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.37 | 0.46 | 0.55 |
| 40 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 50 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 55 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.74 |
| 60 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.37 | 0.41 | 0.49 | 0.53 | 0.56 | 0.69 | 0.78 |
| 80 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 100 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |

$g$

Table 67: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 7 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 9 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 11 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 13 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.21 | 0.25 |
| 15 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.23 | 0.28 |
| 17 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.26 | 0.31 |
| 19 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 21 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.16 | 0.17 | 0.21 | 0.22 | 0.24 | 0.30 | 0.37 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.39 |
| 25 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 27 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 29 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.40 | 0.48 |
| 30 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 35 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.37 | 0.46 | 0.55 |
| 40 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 50 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 55 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.74 |
| 60 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.37 | 0.41 | 0.49 | 0.53 | 0.56 | 0.69 | 0.78 |
| 80 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 100 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |

$g$

Table 68: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 7 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.31 | 0.40 | 0.48 |
| 13 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.54 |
| 15 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.60 |
| 17 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 19 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.71 |
| 21 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 23 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.41 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 25 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.60 | 0.73 | **0.82** |
| 27 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 29 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 30 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.60 | 0.65 | 0.68 | **0.80** | **0.88** |
| 35 | 0.05 | 0.09 | 0.12 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.34 | 0.37 | 0.40 | 0.42 | 0.45 | 0.46 | 0.52 | 0.58 | 0.67 | 0.71 | 0.75 | **0.86** | **0.92** |
| 40 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.51 | 0.58 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 50 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.42 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.60 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 55 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 60 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 80 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 100 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |

Table 69: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 7 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.31 | 0.40 | 0.48 |
| 13 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.54 |
| 15 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.60 |
| 17 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 19 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.71 |
| 21 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 23 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.41 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 25 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.60 | 0.73 | **0.82** |
| 27 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 29 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 30 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.60 | 0.65 | 0.68 | **0.80** | **0.88** |
| 35 | 0.05 | 0.09 | 0.12 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.34 | 0.37 | 0.40 | 0.42 | 0.45 | 0.46 | 0.52 | 0.58 | 0.67 | 0.71 | 0.75 | **0.86** | **0.92** |
| 40 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.51 | 0.58 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 50 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.42 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.60 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 55 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 60 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 80 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 100 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |

Table 70: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 7 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.31 | 0.40 | 0.48 |
| 13 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.54 |
| 15 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.60 |
| 17 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 19 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.71 |
| 21 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 23 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.41 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 25 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.60 | 0.73 | **0.82** |
| 27 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 29 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 30 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.60 | 0.65 | 0.68 | **0.80** | **0.88** |
| 35 | 0.05 | 0.09 | 0.12 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.34 | 0.37 | 0.40 | 0.42 | 0.45 | 0.46 | 0.52 | 0.58 | 0.67 | 0.71 | 0.75 | **0.86** | **0.92** |
| 40 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.51 | 0.58 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 50 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.42 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.60 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 55 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 60 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 80 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 100 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |

Table 71: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 7 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.31 | 0.40 | 0.48 |
| 13 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.54 |
| 15 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.60 |
| 17 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 19 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.71 |
| 21 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 23 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.41 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 25 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.60 | 0.73 | **0.82** |
| 27 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 29 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 30 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.60 | 0.65 | 0.68 | **0.80** | **0.88** |
| 35 | 0.05 | 0.09 | 0.12 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.34 | 0.37 | 0.40 | 0.42 | 0.45 | 0.46 | 0.52 | 0.58 | 0.67 | 0.71 | 0.75 | **0.86** | **0.92** |
| 40 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.51 | 0.58 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 50 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.42 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.60 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 55 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 60 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 80 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 100 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |

Table 72: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.13 | 0.15 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 9 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 11 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 13 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 |
| 15 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 17 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.18 | 0.22 | 0.24 | 0.25 | 0.32 | 0.39 |
| 19 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.43 |
| 21 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.42 | 0.50 |
| 25 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 27 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 29 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.40 | 0.50 | 0.59 |
| 30 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 35 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.26 | 0.30 | 0.33 | 0.40 | 0.43 | 0.46 | 0.58 | 0.67 |
| 40 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 50 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 55 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.86** |
| 60 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 80 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.39 | 0.42 | 0.44 | 0.47 | 0.50 | 0.51 | 0.58 | 0.63 | 0.73 | 0.77 | **0.81** | **0.90** | **0.95** |
| 100 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.61 | 0.67 | 0.73 | **0.82** | **0.86** | **0.88** | **0.95** | **0.98** |

Table 73: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.13 | 0.15 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 9 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 11 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 13 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 |
| 15 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 17 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.18 | 0.22 | 0.24 | 0.25 | 0.32 | 0.39 |
| 19 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.43 |
| 21 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.42 | 0.50 |
| 25 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 27 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 29 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.40 | 0.50 | 0.59 |
| 30 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 35 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.26 | 0.30 | 0.33 | 0.40 | 0.43 | 0.46 | 0.58 | 0.67 |
| 40 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 50 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 55 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.86** |
| 60 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 80 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.39 | 0.42 | 0.44 | 0.47 | 0.50 | 0.51 | 0.58 | 0.63 | 0.73 | 0.77 | **0.81** | **0.90** | **0.95** |
| 100 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.61 | 0.67 | 0.73 | **0.82** | **0.86** | **0.88** | **0.95** | **0.98** |

Table 74: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.13 | 0.15 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 9 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 11 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 13 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 |
| 15 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 17 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.18 | 0.22 | 0.24 | 0.25 | 0.32 | 0.39 |
| 19 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.43 |
| 21 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.42 | 0.50 |
| 25 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 27 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 29 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.40 | 0.50 | 0.59 |
| 30 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 35 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.26 | 0.30 | 0.33 | 0.40 | 0.43 | 0.46 | 0.58 | 0.67 |
| 40 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 50 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 55 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.86** |
| 60 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 80 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.39 | 0.42 | 0.44 | 0.47 | 0.50 | 0.51 | 0.58 | 0.63 | 0.73 | 0.77 | **0.81** | **0.90** | **0.95** |
| 100 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.61 | 0.67 | 0.73 | **0.82** | **0.86** | **0.88** | **0.95** | **0.98** |

Table 75: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.13 | 0.15 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 9 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 11 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 13 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 |
| 15 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 17 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.18 | 0.22 | 0.24 | 0.25 | 0.32 | 0.39 |
| 19 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.43 |
| 21 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.42 | 0.50 |
| 25 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 27 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 29 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.40 | 0.50 | 0.59 |
| 30 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 35 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.26 | 0.30 | 0.33 | 0.40 | 0.43 | 0.46 | 0.58 | 0.67 |
| 40 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 50 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 55 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.86** |
| 60 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 80 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.39 | 0.42 | 0.44 | 0.47 | 0.50 | 0.51 | 0.58 | 0.63 | 0.73 | 0.77 | **0.81** | **0.90** | **0.95** |
| 100 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.61 | 0.67 | 0.73 | **0.82** | **0.86** | **0.88** | **0.95** | **0.98** |

Table 76: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.19 | 0.22 |
| 7 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 9 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.16 | 0.17 | 0.20 | 0.22 | 0.24 | 0.30 | 0.36 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 13 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.27 | 0.30 | 0.32 | 0.40 | 0.48 |
| 15 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.33 | 0.36 | 0.45 | 0.54 |
| 17 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.40 | 0.50 | 0.59 |
| 19 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.38 | 0.41 | 0.44 | 0.55 | 0.64 |
| 21 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.26 | 0.27 | 0.30 | 0.34 | 0.41 | 0.44 | 0.47 | 0.59 | 0.69 |
| 23 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.47 | 0.51 | 0.63 | 0.72 |
| 25 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.51 | 0.54 | 0.66 | 0.76 |
| 27 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.54 | 0.57 | 0.70 | 0.79 |
| 29 | 0.05 | 0.07 | 0.09 | 0.11 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.60 | 0.73 | **0.82** |
| 30 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.45 | 0.54 | 0.58 | 0.62 | 0.74 | **0.83** |
| 35 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 40 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.71 | 0.74 | **0.85** | **0.92** |
| 50 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 55 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.33 | 0.37 | 0.41 | 0.44 | 0.47 | 0.51 | 0.54 | 0.57 | 0.58 | 0.65 | 0.71 | **0.80** | **0.83** | **0.86** | **0.94** | **0.98** |
| 60 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.47 | 0.51 | 0.54 | 0.57 | 0.60 | 0.62 | 0.69 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 80 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.81** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 100 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.69 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |

Table 77: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.10 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 |
| 7 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 9 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 11 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 13 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 15 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.26 | 0.31 |
| 17 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 19 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 21 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 25 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.39 | 0.47 |
| 27 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.28 | 0.31 | 0.33 | 0.42 | 0.50 |
| 29 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.53 |
| 30 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.33 | 0.36 | 0.45 | 0.54 |
| 35 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 40 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 50 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.51 | 0.54 | 0.66 | 0.76 |
| 55 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.33 | 0.38 | 0.42 | 0.51 | 0.54 | 0.58 | 0.71 | **0.80** |
| 60 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.45 | 0.54 | 0.58 | 0.62 | 0.74 | **0.83** |
| 80 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.71 | 0.74 | **0.85** | **0.92** |
| 100 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |

Table 78: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.19 | 0.22 |
| 7 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 9 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.16 | 0.17 | 0.20 | 0.22 | 0.24 | 0.30 | 0.36 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 13 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.27 | 0.30 | 0.32 | 0.40 | 0.48 |
| 15 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.33 | 0.36 | 0.45 | 0.54 |
| 17 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.40 | 0.50 | 0.59 |
| 19 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.38 | 0.41 | 0.44 | 0.55 | 0.64 |
| 21 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.26 | 0.27 | 0.30 | 0.34 | 0.41 | 0.44 | 0.47 | 0.59 | 0.69 |
| 23 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.47 | 0.51 | 0.63 | 0.72 |
| 25 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.51 | 0.54 | 0.66 | 0.76 |
| 27 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.54 | 0.57 | 0.70 | 0.79 |
| 29 | 0.05 | 0.07 | 0.09 | 0.11 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.60 | 0.73 | **0.82** |
| 30 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.45 | 0.54 | 0.58 | 0.62 | 0.74 | **0.83** |
| 35 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 40 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.71 | 0.74 | **0.85** | **0.92** |
| 50 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 55 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.33 | 0.37 | 0.41 | 0.44 | 0.47 | 0.51 | 0.54 | 0.57 | 0.58 | 0.65 | 0.71 | **0.80** | **0.83** | **0.86** | **0.94** | **0.98** |
| 60 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.47 | 0.51 | 0.54 | 0.57 | 0.60 | 0.62 | 0.69 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 80 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.81** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 100 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.69 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |

Table 79: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.10 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 |
| 7 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 9 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 11 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 13 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 15 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.26 | 0.31 |
| 17 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 19 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 21 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 25 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.39 | 0.47 |
| 27 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.28 | 0.31 | 0.33 | 0.42 | 0.50 |
| 29 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.53 |
| 30 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.33 | 0.36 | 0.45 | 0.54 |
| 35 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 40 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 50 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.51 | 0.54 | 0.66 | 0.76 |
| 55 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.33 | 0.38 | 0.42 | 0.51 | 0.54 | 0.58 | 0.71 | **0.80** |
| 60 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.45 | 0.54 | 0.58 | 0.62 | 0.74 | **0.83** |
| 80 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.71 | 0.74 | **0.85** | **0.92** |
| 100 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |

Table 80: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.10 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 |
| 7 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 9 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 11 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 13 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 15 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.26 | 0.31 |
| 17 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.20 | 0.21 | 0.23 | 0.28 | 0.34 |
| 19 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 21 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 25 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.39 | 0.47 |
| 27 | 0.04 | 0.05 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.28 | 0.31 | 0.33 | 0.42 | 0.50 |
| 29 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 30 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.33 | 0.36 | 0.46 | 0.54 |
| 35 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 40 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.46 | 0.57 | 0.67 |
| 50 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.51 | 0.54 | 0.67 | 0.76 |
| 55 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.33 | 0.38 | 0.42 | 0.51 | 0.55 | 0.58 | 0.71 | **0.80** |
| 60 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.54 | 0.58 | 0.62 | 0.74 | **0.83** |
| 80 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.46 | 0.51 | 0.57 | 0.67 | 0.71 | 0.74 | **0.86** | **0.92** |
| 100 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.67 | 0.76 | **0.80** | **0.83** | **0.92** | **0.97** |

Table 81: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 5 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 7 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 9 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 11 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 13 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.11 | 0.14 | 0.16 |
| 15 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.15 | 0.18 |
| 17 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.16 | 0.20 |
| 19 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.14 | 0.18 | 0.21 |
| 21 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 23 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 25 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.22 | 0.27 |
| 27 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.24 | 0.28 |
| 29 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 30 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.26 | 0.31 |
| 35 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.29 | 0.35 |
| 40 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.39 |
| 50 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.39 | 0.47 |
| 55 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.51 |
| 60 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.33 | 0.36 | 0.46 | 0.54 |
| 80 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.46 | 0.57 | 0.67 |
| 100 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.51 | 0.54 | 0.67 | 0.76 |

Table 82: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.10 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 |
| 7 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 9 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 11 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 13 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 15 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.26 | 0.31 |
| 17 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.20 | 0.21 | 0.23 | 0.28 | 0.34 |
| 19 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 21 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 25 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.39 | 0.47 |
| 27 | 0.04 | 0.05 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.28 | 0.31 | 0.33 | 0.42 | 0.50 |
| 29 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 30 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.33 | 0.36 | 0.46 | 0.54 |
| 35 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 40 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.46 | 0.57 | 0.67 |
| 50 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.51 | 0.54 | 0.67 | 0.76 |
| 55 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.33 | 0.38 | 0.42 | 0.51 | 0.55 | 0.58 | 0.71 | **0.80** |
| 60 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.54 | 0.58 | 0.62 | 0.74 | **0.83** |
| 80 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.46 | 0.51 | 0.57 | 0.67 | 0.71 | 0.74 | **0.86** | **0.92** |
| 100 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.67 | 0.76 | **0.80** | **0.83** | **0.92** | **0.97** |

Table 83: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 5 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 7 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 9 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 11 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 13 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.11 | 0.14 | 0.16 |
| 15 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.15 | 0.18 |
| 17 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.16 | 0.20 |
| 19 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.14 | 0.18 | 0.21 |
| 21 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 23 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 25 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.22 | 0.27 |
| 27 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.24 | 0.28 |
| 29 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 30 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.26 | 0.31 |
| 35 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.29 | 0.35 |
| 40 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.39 |
| 50 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.39 | 0.47 |
| 55 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.51 |
| 60 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.33 | 0.36 | 0.46 | 0.54 |
| 80 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.46 | 0.57 | 0.67 |
| 100 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.51 | 0.54 | 0.67 | 0.76 |

Table 84: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.17 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.39 | 0.47 |
| 11 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.37 | 0.46 | 0.55 |
| 13 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 15 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.30 | 0.34 | 0.41 | 0.44 | 0.47 | 0.59 | 0.68 |
| 17 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.45 | 0.49 | 0.52 | 0.64 | 0.74 |
| 19 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.32 | 0.37 | 0.41 | 0.49 | 0.53 | 0.57 | 0.69 | 0.78 |
| 21 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.45 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 23 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.86** |
| 25 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.68 | **0.80** | **0.88** |
| 27 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.91** |
| 29 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.34 | 0.37 | 0.40 | 0.42 | 0.45 | 0.46 | 0.52 | 0.57 | 0.67 | 0.71 | 0.75 | **0.86** | **0.92** |
| 30 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.38 | 0.41 | 0.43 | 0.46 | 0.47 | 0.53 | 0.59 | 0.68 | 0.73 | 0.76 | **0.87** | **0.93** |
| 35 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.23 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.65 | 0.75 | 0.79 | **0.82** | **0.92** | **0.96** |
| 40 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.51 | 0.54 | 0.57 | 0.59 | 0.65 | 0.71 | **0.80** | **0.84** | **0.87** | **0.95** | **0.98** |
| 50 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 55 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 60 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.68 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 80 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 100 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.86** | **0.88** | **0.91** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |

$g$

Table 85: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 5 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 9 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 11 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 |
| 13 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.16 | 0.17 | 0.20 | 0.22 | 0.24 | 0.30 | 0.36 |
| 15 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 17 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.30 | 0.38 | 0.45 |
| 19 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 21 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.45 | 0.53 |
| 23 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.33 | 0.35 | 0.38 | 0.48 | 0.57 |
| 25 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 27 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.24 | 0.24 | 0.28 | 0.31 | 0.37 | 0.40 | 0.43 | 0.54 | 0.64 |
| 29 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.40 | 0.43 | 0.46 | 0.57 | 0.67 |
| 30 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.30 | 0.34 | 0.41 | 0.44 | 0.47 | 0.59 | 0.68 |
| 35 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 40 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.38 | 0.43 | 0.51 | 0.55 | 0.59 | 0.71 | **0.80** |
| 50 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.68 | **0.80** | **0.88** |
| 55 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 60 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.38 | 0.41 | 0.43 | 0.46 | 0.47 | 0.53 | 0.59 | 0.68 | 0.73 | 0.76 | **0.87** | **0.93** |
| 80 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.51 | 0.54 | 0.57 | 0.59 | 0.65 | 0.71 | **0.80** | **0.84** | **0.87** | **0.95** | **0.98** |
| 100 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |

$g$

Table 86: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.17 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.39 | 0.47 |
| 11 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.37 | 0.46 | 0.55 |
| 13 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 15 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.30 | 0.34 | 0.41 | 0.44 | 0.47 | 0.59 | 0.68 |
| 17 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.45 | 0.49 | 0.52 | 0.64 | 0.74 |
| 19 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.32 | 0.37 | 0.41 | 0.49 | 0.53 | 0.57 | 0.69 | 0.78 |
| 21 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.45 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 23 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.86** |
| 25 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.68 | **0.80** | **0.88** |
| 27 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.91** |
| 29 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.34 | 0.37 | 0.40 | 0.42 | 0.45 | 0.46 | 0.52 | 0.57 | 0.67 | 0.71 | 0.75 | **0.86** | **0.92** |
| 30 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.38 | 0.41 | 0.43 | 0.46 | 0.47 | 0.53 | 0.59 | 0.68 | 0.73 | 0.76 | **0.87** | **0.93** |
| 35 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.23 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.65 | 0.75 | 0.79 | **0.82** | **0.92** | **0.96** |
| 40 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.51 | 0.54 | 0.57 | 0.59 | 0.65 | 0.71 | **0.80** | **0.84** | **0.87** | **0.95** | **0.98** |
| 50 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 55 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 60 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.68 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 80 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 100 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.86** | **0.88** | **0.91** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 87: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 5 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 9 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 11 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 |
| 13 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.16 | 0.17 | 0.20 | 0.22 | 0.24 | 0.30 | 0.36 |
| 15 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 17 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.30 | 0.38 | 0.45 |
| 19 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 21 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.45 | 0.53 |
| 23 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.33 | 0.35 | 0.38 | 0.48 | 0.57 |
| 25 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 27 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.24 | 0.24 | 0.28 | 0.31 | 0.37 | 0.40 | 0.43 | 0.54 | 0.64 |
| 29 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.40 | 0.43 | 0.46 | 0.57 | 0.67 |
| 30 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.30 | 0.34 | 0.41 | 0.44 | 0.47 | 0.59 | 0.68 |
| 35 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 40 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.38 | 0.43 | 0.51 | 0.55 | 0.59 | 0.71 | **0.80** |
| 50 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.68 | **0.80** | **0.88** |
| 55 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 60 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.38 | 0.41 | 0.43 | 0.46 | 0.47 | 0.53 | 0.59 | 0.68 | 0.73 | 0.76 | **0.87** | **0.93** |
| 80 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.51 | 0.54 | 0.57 | 0.59 | 0.65 | 0.71 | **0.80** | **0.84** | **0.87** | **0.95** | **0.98** |
| 100 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |

Table 88: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 5 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 9 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 11 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.32 |
| 13 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.16 | 0.17 | 0.21 | 0.22 | 0.24 | 0.30 | 0.36 |
| 15 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 17 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.26 | 0.28 | 0.30 | 0.38 | 0.45 |
| 19 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.41 | 0.49 |
| 21 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.45 | 0.53 |
| 23 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.24 | 0.27 | 0.33 | 0.35 | 0.38 | 0.48 | 0.57 |
| 25 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 27 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.37 | 0.41 | 0.44 | 0.55 | 0.64 |
| 29 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.30 | 0.33 | 0.40 | 0.43 | 0.46 | 0.58 | 0.67 |
| 30 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.30 | 0.34 | 0.41 | 0.44 | 0.47 | 0.59 | 0.69 |
| 35 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.30 | 0.30 | 0.35 | 0.39 | 0.46 | 0.50 | 0.53 | 0.66 | 0.75 |
| 40 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.51 | 0.55 | 0.59 | 0.71 | **0.81** |
| 50 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 55 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 60 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.53 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 80 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.51 | 0.55 | 0.58 | 0.59 | 0.66 | 0.71 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 100 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |

Table 89: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 7 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.09 | 0.11 | 0.13 |
| 9 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 11 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.18 |
| 13 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.21 |
| 15 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 17 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.26 |
| 19 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.23 | 0.28 |
| 21 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 23 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 25 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 27 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.37 |
| 29 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.40 |
| 30 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 35 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 40 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.51 |
| 50 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 55 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.55 | 0.65 |
| 60 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.30 | 0.34 | 0.41 | 0.44 | 0.47 | 0.59 | 0.69 |
| 80 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.51 | 0.55 | 0.59 | 0.71 | **0.81** |
| 100 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |

Table 90: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 5 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 9 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 11 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.32 |
| 13 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.16 | 0.17 | 0.21 | 0.22 | 0.24 | 0.30 | 0.36 |
| 15 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 17 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.26 | 0.28 | 0.30 | 0.38 | 0.45 |
| 19 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.41 | 0.49 |
| 21 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.45 | 0.53 |
| 23 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.24 | 0.27 | 0.33 | 0.35 | 0.38 | 0.48 | 0.57 |
| 25 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 27 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.37 | 0.41 | 0.44 | 0.55 | 0.64 |
| 29 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.30 | 0.33 | 0.40 | 0.43 | 0.46 | 0.58 | 0.67 |
| 30 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.30 | 0.34 | 0.41 | 0.44 | 0.47 | 0.59 | 0.69 |
| 35 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.30 | 0.30 | 0.35 | 0.39 | 0.46 | 0.50 | 0.53 | 0.66 | 0.75 |
| 40 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.51 | 0.55 | 0.59 | 0.71 | **0.81** |
| 50 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 55 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 60 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.53 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 80 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.51 | 0.55 | 0.58 | 0.59 | 0.66 | 0.71 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 100 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |

Table 91: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 7 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.09 | 0.11 | 0.13 |
| 9 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 11 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.18 |
| 13 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.21 |
| 15 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 17 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.26 |
| 19 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.23 | 0.28 |
| 21 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 23 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 25 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 27 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.37 |
| 29 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.40 |
| 30 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 35 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 40 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.51 |
| 50 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 55 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.55 | 0.65 |
| 60 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.30 | 0.34 | 0.41 | 0.44 | 0.47 | 0.59 | 0.69 |
| 80 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.51 | 0.55 | 0.59 | 0.71 | **0.81** |
| 100 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |

Table 92: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 9 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 11 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.32 | 0.38 |
| 13 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.16 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.36 | 0.44 |
| 15 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 17 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.25 | 0.31 | 0.33 | 0.36 | 0.45 | 0.54 |
| 19 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.34 | 0.36 | 0.39 | 0.49 | 0.58 |
| 21 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.37 | 0.40 | 0.42 | 0.53 | 0.63 |
| 23 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.43 | 0.46 | 0.57 | 0.67 |
| 25 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 27 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 29 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.31 | 0.36 | 0.40 | 0.48 | 0.51 | 0.55 | 0.67 | 0.77 |
| 30 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.37 | 0.41 | 0.49 | 0.53 | 0.56 | 0.69 | 0.78 |
| 35 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.37 | 0.42 | 0.46 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 40 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 50 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 55 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.48 | 0.51 | 0.53 | 0.59 | 0.65 | 0.74 | 0.78 | **0.82** | **0.91** | **0.96** |
| 60 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.29 | 0.32 | 0.36 | 0.39 | 0.42 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.69 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 80 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 100 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |

$g$

Table 93: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 9 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 11 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.32 | 0.38 |
| 13 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.16 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.36 | 0.44 |
| 15 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 17 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.25 | 0.31 | 0.33 | 0.36 | 0.45 | 0.54 |
| 19 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.34 | 0.36 | 0.39 | 0.49 | 0.58 |
| 21 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.37 | 0.40 | 0.42 | 0.53 | 0.63 |
| 23 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.43 | 0.46 | 0.57 | 0.67 |
| 25 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 27 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 29 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.31 | 0.36 | 0.40 | 0.48 | 0.51 | 0.55 | 0.67 | 0.77 |
| 30 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.37 | 0.41 | 0.49 | 0.53 | 0.56 | 0.69 | 0.78 |
| 35 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.37 | 0.42 | 0.46 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 40 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 50 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 55 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.48 | 0.51 | 0.53 | 0.59 | 0.65 | 0.74 | 0.78 | **0.82** | **0.91** | **0.96** |
| 60 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.29 | 0.32 | 0.36 | 0.39 | 0.42 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.69 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 80 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 100 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |

$g$

Table 94: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 7 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 9 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 11 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 13 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.21 | 0.25 |
| 15 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.23 | 0.28 |
| 17 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.25 | 0.31 |
| 19 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 21 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.16 | 0.17 | 0.21 | 0.22 | 0.24 | 0.30 | 0.37 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.39 |
| 25 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 27 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 29 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.40 | 0.48 |
| 30 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 35 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.37 | 0.46 | 0.55 |
| 40 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 50 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 55 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.74 |
| 60 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.37 | 0.41 | 0.49 | 0.53 | 0.56 | 0.69 | 0.78 |
| 80 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 100 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |

Table 95: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 7 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 9 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 11 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 13 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.21 | 0.25 |
| 15 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.23 | 0.28 |
| 17 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.25 | 0.31 |
| 19 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 21 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.16 | 0.17 | 0.21 | 0.22 | 0.24 | 0.30 | 0.37 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.39 |
| 25 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 27 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 29 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.40 | 0.48 |
| 30 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 35 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.37 | 0.46 | 0.55 |
| 40 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 50 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 55 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.74 |
| 60 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.37 | 0.41 | 0.49 | 0.53 | 0.56 | 0.69 | 0.78 |
| 80 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 100 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |

Table 96: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 7 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 9 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 11 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 13 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.21 | 0.25 |
| 15 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.23 | 0.28 |
| 17 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.26 | 0.31 |
| 19 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 21 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.16 | 0.17 | 0.21 | 0.22 | 0.24 | 0.30 | 0.37 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.39 |
| 25 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 27 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.30 | 0.37 | 0.45 |
| 29 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.40 | 0.48 |
| 30 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 35 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.37 | 0.46 | 0.55 |
| 40 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 50 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 55 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.74 |
| 60 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.31 | 0.32 | 0.37 | 0.41 | 0.49 | 0.53 | 0.56 | 0.69 | 0.78 |
| 80 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 100 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |

$g$

Table 97: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 7 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 9 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 11 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 13 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.21 | 0.25 |
| 15 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.23 | 0.28 |
| 17 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.26 | 0.31 |
| 19 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 21 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.16 | 0.17 | 0.21 | 0.22 | 0.24 | 0.30 | 0.37 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.39 |
| 25 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 27 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.30 | 0.37 | 0.45 |
| 29 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.40 | 0.48 |
| 30 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 35 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.37 | 0.46 | 0.55 |
| 40 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 50 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 55 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.74 |
| 60 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.31 | 0.32 | 0.37 | 0.41 | 0.49 | 0.53 | 0.56 | 0.69 | 0.78 |
| 80 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 100 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |

$g$

Table 98: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 5 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 7 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 9 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.08 | 0.10 | 0.11 |
| 11 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 13 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 15 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.14 | 0.16 |
| 17 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.15 | 0.18 |
| 19 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 21 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.21 |
| 23 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.13 | 0.14 | 0.15 | 0.19 | 0.22 |
| 25 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 27 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 29 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 30 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.23 | 0.28 |
| 35 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 |
| 40 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.29 | 0.35 |
| 50 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 55 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 60 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 80 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 100 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |

Table 99: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 5 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 7 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 9 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.08 | 0.10 | 0.11 |
| 11 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 13 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 15 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.14 | 0.16 |
| 17 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.15 | 0.18 |
| 19 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 21 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.21 |
| 23 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.13 | 0.14 | 0.15 | 0.19 | 0.22 |
| 25 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 27 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 29 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 30 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.12 | 0.14 | 0.16 | 0.17 | 0.18 | 0.23 | 0.28 |
| 35 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 |
| 40 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.29 | 0.35 |
| 50 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 55 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 60 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 80 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 100 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |

Table 100: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 7 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 13 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.55 |
| 15 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 17 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 19 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.35 | 0.43 | 0.46 | 0.49 | 0.61 | 0.71 |
| 21 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.39 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 23 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 25 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 27 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 29 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.39 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 30 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.68 | **0.80** | **0.88** |
| 35 | 0.05 | 0.09 | 0.12 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.34 | 0.37 | 0.40 | 0.42 | 0.45 | 0.46 | 0.52 | 0.58 | 0.67 | 0.71 | 0.75 | **0.86** | **0.93** |
| 40 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.39 | 0.42 | 0.44 | 0.47 | 0.50 | 0.51 | 0.58 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 50 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.61 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 55 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 60 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 80 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 100 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.93** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |

Table 101: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 7 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 13 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.55 |
| 15 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 17 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 19 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.35 | 0.43 | 0.46 | 0.49 | 0.61 | 0.71 |
| 21 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.39 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 23 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 25 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 27 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 29 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.39 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 30 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.68 | **0.80** | **0.88** |
| 35 | 0.05 | 0.09 | 0.12 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.34 | 0.37 | 0.40 | 0.42 | 0.45 | 0.46 | 0.52 | 0.58 | 0.67 | 0.71 | 0.75 | **0.86** | **0.93** |
| 40 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.39 | 0.42 | 0.44 | 0.47 | 0.50 | 0.51 | 0.58 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 50 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.61 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 55 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 60 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 80 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 100 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.93** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |

Table 102: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.13 | 0.15 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 9 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 11 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 13 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 |
| 15 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 17 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.18 | 0.22 | 0.24 | 0.25 | 0.32 | 0.39 |
| 19 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.43 |
| 21 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.42 | 0.50 |
| 25 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 27 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 29 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.40 | 0.50 | 0.59 |
| 30 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 35 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.30 | 0.33 | 0.40 | 0.43 | 0.46 | 0.58 | 0.67 |
| 40 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 50 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 55 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.85** |
| 60 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.68 | **0.80** | **0.88** |
| 80 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.39 | 0.42 | 0.44 | 0.47 | 0.50 | 0.51 | 0.58 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 100 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.61 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |

Table 103: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.13 | 0.15 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 9 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 11 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 13 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 |
| 15 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 17 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.18 | 0.22 | 0.24 | 0.25 | 0.32 | 0.39 |
| 19 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.43 |
| 21 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.42 | 0.50 |
| 25 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 27 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 29 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.40 | 0.50 | 0.59 |
| 30 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 35 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.30 | 0.33 | 0.40 | 0.43 | 0.46 | 0.58 | 0.67 |
| 40 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 50 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 55 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.85** |
| 60 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.68 | **0.80** | **0.88** |
| 80 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.39 | 0.42 | 0.44 | 0.47 | 0.50 | 0.51 | 0.58 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 100 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.61 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |

Table 104: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.13 | 0.15 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 9 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 11 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 13 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 |
| 15 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 17 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.18 | 0.22 | 0.24 | 0.26 | 0.32 | 0.39 |
| 19 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.36 | 0.43 |
| 21 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.42 | 0.50 |
| 25 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.45 | 0.53 |
| 27 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 29 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.40 | 0.50 | 0.59 |
| 30 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 35 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.26 | 0.30 | 0.33 | 0.40 | 0.43 | 0.46 | 0.58 | 0.67 |
| 40 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.51 | 0.64 | 0.73 |
| 50 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.45 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 55 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.86** |
| 60 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 80 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.36 | 0.39 | 0.42 | 0.45 | 0.47 | 0.50 | 0.51 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.90** | **0.95** |
| 100 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.61 | 0.67 | 0.73 | **0.82** | **0.86** | **0.88** | **0.95** | **0.98** |

Table 105: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.13 | 0.15 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 9 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 11 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 13 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 |
| 15 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 17 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.18 | 0.22 | 0.24 | 0.26 | 0.32 | 0.39 |
| 19 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.36 | 0.43 |
| 21 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 23 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.42 | 0.50 |
| 25 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.45 | 0.53 |
| 27 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 29 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.40 | 0.50 | 0.59 |
| 30 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 35 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.26 | 0.30 | 0.33 | 0.40 | 0.43 | 0.46 | 0.58 | 0.67 |
| 40 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.51 | 0.64 | 0.73 |
| 50 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.45 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 55 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.86** |
| 60 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 80 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.36 | 0.39 | 0.42 | 0.45 | 0.47 | 0.50 | 0.51 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.90** | **0.95** |
| 100 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.61 | 0.67 | 0.73 | **0.82** | **0.86** | **0.88** | **0.95** | **0.98** |

Table 106: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 5 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 |
| 7 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 9 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 11 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.13 | 0.16 |
| 13 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.15 | 0.18 |
| 15 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 17 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 19 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 21 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 23 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.23 | 0.28 |
| 25 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 27 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 29 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 30 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 35 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.24 | 0.26 | 0.33 | 0.40 |
| 40 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 50 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.45 | 0.53 |
| 55 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.33 | 0.35 | 0.38 | 0.48 | 0.57 |
| 60 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 80 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.51 | 0.64 | 0.73 |
| 100 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.45 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |

Table 107: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 5 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 |
| 7 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 9 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 11 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.13 | 0.16 |
| 13 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.15 | 0.18 |
| 15 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 17 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 19 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 21 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 23 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.23 | 0.28 |
| 25 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 27 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 29 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 30 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 35 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.24 | 0.26 | 0.33 | 0.40 |
| 40 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 50 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.45 | 0.53 |
| 55 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.33 | 0.35 | 0.38 | 0.48 | 0.57 |
| 60 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 80 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.51 | 0.64 | 0.73 |
| 100 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.45 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |

Table 108: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.25 | 0.31 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.36 | 0.43 | 0.46 | 0.50 | 0.61 | 0.71 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.21 | 0.24 | 0.27 | 0.29 | 0.32 | 0.34 | 0.37 | 0.39 | 0.42 | 0.43 | 0.48 | 0.54 | 0.63 | 0.67 | 0.71 | **0.83** | **0.90** |
| 7 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.56 | 0.62 | 0.68 | 0.78 | **0.81** | **0.85** | **0.93** | **0.97** |
| 9 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.48 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.66 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 11 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.67 | 0.71 | 0.74 | 0.75 | **0.81** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 13 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.74 | 0.78 | **0.80** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 15 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 17 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 19 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.23 | 0.34 | 0.45 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.74 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.18 | 0.43 | 0.63 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 109: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.25 | 0.31 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.36 | 0.43 | 0.46 | 0.50 | 0.61 | 0.71 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.21 | 0.24 | 0.27 | 0.29 | 0.32 | 0.34 | 0.37 | 0.39 | 0.42 | 0.43 | 0.48 | 0.54 | 0.63 | 0.67 | 0.71 | **0.83** | **0.90** |
| 7 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.56 | 0.62 | 0.68 | 0.78 | **0.81** | **0.85** | **0.93** | **0.97** |
| 9 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.48 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.66 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 11 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.67 | 0.71 | 0.74 | 0.75 | **0.81** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 13 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.74 | 0.78 | **0.80** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 15 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 17 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 19 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.23 | 0.34 | 0.45 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.74 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.18 | 0.43 | 0.63 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 110: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.25 | 0.31 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.36 | 0.43 | 0.46 | 0.50 | 0.61 | 0.71 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.21 | 0.24 | 0.27 | 0.29 | 0.32 | 0.34 | 0.37 | 0.39 | 0.42 | 0.43 | 0.48 | 0.54 | 0.63 | 0.67 | 0.71 | **0.83** | **0.90** |
| 7 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.56 | 0.62 | 0.68 | 0.78 | **0.81** | **0.85** | **0.93** | **0.97** |
| 9 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.48 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.66 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 11 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.67 | 0.71 | 0.74 | 0.75 | **0.81** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 13 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.74 | 0.78 | **0.80** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 15 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 17 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 19 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.23 | 0.34 | 0.45 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.74 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.18 | 0.43 | 0.63 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 111: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.25 | 0.31 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.36 | 0.43 | 0.46 | 0.50 | 0.61 | 0.71 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.21 | 0.24 | 0.27 | 0.29 | 0.32 | 0.34 | 0.37 | 0.39 | 0.42 | 0.43 | 0.48 | 0.54 | 0.63 | 0.67 | 0.71 | **0.83** | **0.90** |
| 7 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.56 | 0.62 | 0.68 | 0.78 | **0.81** | **0.85** | **0.93** | **0.97** |
| 9 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.48 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.66 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 11 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.67 | 0.71 | 0.74 | 0.75 | **0.81** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 13 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.74 | 0.78 | **0.80** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 15 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 17 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 19 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.23 | 0.34 | 0.45 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.74 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.18 | 0.43 | 0.63 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 112: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.15 | 0.18 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.38 | 0.41 | 0.44 | 0.55 | 0.65 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 9 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.39 | 0.40 | 0.46 | 0.51 | 0.60 | 0.64 | 0.68 | **0.80** | **0.88** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.53 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 13 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.37 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.60 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.38 | 0.42 | 0.46 | 0.49 | 0.52 | 0.56 | 0.59 | 0.60 | 0.67 | 0.72 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 17 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.38 | 0.43 | 0.47 | 0.50 | 0.54 | 0.58 | 0.61 | 0.64 | 0.65 | 0.72 | 0.78 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.28 | 0.33 | 0.37 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 21 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.41 | 0.46 | 0.50 | 0.55 | 0.59 | 0.63 | 0.67 | 0.70 | 0.73 | 0.74 | **0.81** | **0.86** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.78 | **0.84** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 25 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.58 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 30 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.47 | 0.54 | 0.60 | 0.65 | 0.70 | 0.74 | 0.78 | **0.82** | **0.84** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 35 | 0.09 | 0.19 | 0.28 | 0.37 | 0.46 | 0.53 | 0.60 | 0.67 | 0.72 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.31 | 0.42 | 0.51 | 0.59 | 0.66 | 0.72 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 113: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.15 | 0.18 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.38 | 0.41 | 0.44 | 0.55 | 0.65 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 9 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.39 | 0.40 | 0.46 | 0.51 | 0.60 | 0.64 | 0.68 | **0.80** | **0.88** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.53 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 13 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.37 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.60 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.38 | 0.42 | 0.46 | 0.49 | 0.52 | 0.56 | 0.59 | 0.60 | 0.67 | 0.72 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 17 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.38 | 0.43 | 0.47 | 0.50 | 0.54 | 0.58 | 0.61 | 0.64 | 0.65 | 0.72 | 0.78 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.28 | 0.33 | 0.37 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 21 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.41 | 0.46 | 0.50 | 0.55 | 0.59 | 0.63 | 0.67 | 0.70 | 0.73 | 0.74 | **0.81** | **0.86** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.78 | **0.84** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 25 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.58 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 30 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.47 | 0.54 | 0.60 | 0.65 | 0.70 | 0.74 | 0.78 | **0.82** | **0.84** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 35 | 0.09 | 0.19 | 0.28 | 0.37 | 0.46 | 0.53 | 0.60 | 0.67 | 0.72 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.31 | 0.42 | 0.51 | 0.59 | 0.66 | 0.72 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 114: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.15 | 0.18 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.38 | 0.41 | 0.44 | 0.55 | 0.65 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 9 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.39 | 0.40 | 0.46 | 0.51 | 0.60 | 0.64 | 0.68 | **0.80** | **0.88** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.53 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 13 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.37 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.60 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.38 | 0.42 | 0.46 | 0.49 | 0.52 | 0.56 | 0.59 | 0.60 | 0.67 | 0.72 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 17 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.38 | 0.43 | 0.47 | 0.50 | 0.54 | 0.58 | 0.61 | 0.64 | 0.65 | 0.72 | 0.78 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.28 | 0.33 | 0.37 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 21 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.41 | 0.46 | 0.50 | 0.55 | 0.59 | 0.63 | 0.67 | 0.70 | 0.73 | 0.74 | **0.81** | **0.86** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.78 | **0.84** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 25 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.58 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 30 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.47 | 0.54 | 0.60 | 0.65 | 0.70 | 0.74 | 0.78 | **0.82** | **0.84** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 35 | 0.09 | 0.19 | 0.28 | 0.37 | 0.46 | 0.53 | 0.60 | 0.67 | 0.72 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.31 | 0.42 | 0.51 | 0.59 | 0.66 | 0.72 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 115: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.15 | 0.18 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.38 | 0.41 | 0.44 | 0.55 | 0.65 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 9 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.39 | 0.40 | 0.46 | 0.51 | 0.60 | 0.64 | 0.68 | **0.80** | **0.88** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.53 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 13 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.37 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.60 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.38 | 0.42 | 0.46 | 0.49 | 0.52 | 0.56 | 0.59 | 0.60 | 0.67 | 0.72 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 17 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.38 | 0.43 | 0.47 | 0.50 | 0.54 | 0.58 | 0.61 | 0.64 | 0.65 | 0.72 | 0.78 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.28 | 0.33 | 0.37 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 21 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.41 | 0.46 | 0.50 | 0.55 | 0.59 | 0.63 | 0.67 | 0.70 | 0.73 | 0.74 | **0.81** | **0.86** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.78 | **0.84** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 25 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.58 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 30 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.47 | 0.54 | 0.60 | 0.65 | 0.70 | 0.74 | 0.78 | **0.82** | **0.84** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 35 | 0.09 | 0.19 | 0.28 | 0.37 | 0.46 | 0.53 | 0.60 | 0.67 | 0.72 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.31 | 0.42 | 0.51 | 0.59 | 0.66 | 0.72 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 116: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 | |
| 3 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.60 | 0.73 | **0.82** | |
| 5 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.59 | 0.65 | 0.75 | 0.79 | **0.82** | **0.91** | **0.96** | |
| 7 | 0.06 | 0.12 | 0.16 | 0.21 | 0.26 | 0.31 | 0.35 | 0.40 | 0.44 | 0.48 | 0.52 | 0.56 | 0.59 | 0.63 | 0.66 | 0.67 | 0.74 | 0.79 | **0.87** | **0.90** | **0.93** | **0.98** | **0.99** | |
| 9 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.73 | 0.76 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** | |
| 11 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | |
| 13 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | |
| 15 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 17 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 19 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 21 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 23 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 25 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.79 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 27 | 0.14 | 0.32 | 0.49 | 0.63 | 0.73 | **0.82** | **0.87** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 29 | 0.14 | 0.34 | 0.52 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 30 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 35 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 40 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 50 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 55 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 60 | 0.25 | 0.60 | **0.82** | **0.93** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 80 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 100 | 0.38 | **0.82** | **0.96** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |

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Table 117: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 | |
| 3 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.60 | 0.73 | **0.82** | |
| 5 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.59 | 0.65 | 0.75 | 0.79 | **0.82** | **0.91** | **0.96** | |
| 7 | 0.06 | 0.12 | 0.16 | 0.21 | 0.26 | 0.31 | 0.35 | 0.40 | 0.44 | 0.48 | 0.52 | 0.56 | 0.59 | 0.63 | 0.66 | 0.67 | 0.74 | 0.79 | **0.87** | **0.90** | **0.93** | **0.98** | **0.99** | |
| 9 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.73 | 0.76 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** | |
| 11 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | |
| 13 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | |
| 15 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 17 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 19 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 21 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 23 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 25 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.79 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 27 | 0.14 | 0.32 | 0.49 | 0.63 | 0.73 | **0.82** | **0.87** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 29 | 0.14 | 0.34 | 0.52 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 30 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 35 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 40 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 50 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 55 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 60 | 0.25 | 0.60 | **0.82** | **0.93** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 80 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 100 | 0.38 | **0.82** | **0.96** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |

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Table 118: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 3 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.60 | 0.73 | **0.82** |
| 5 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.59 | 0.65 | 0.75 | 0.79 | **0.82** | **0.91** | **0.96** |
| 7 | 0.06 | 0.12 | 0.16 | 0.21 | 0.26 | 0.31 | 0.35 | 0.40 | 0.44 | 0.48 | 0.52 | 0.56 | 0.59 | 0.63 | 0.66 | 0.67 | 0.74 | 0.79 | **0.87** | **0.90** | **0.93** | **0.98** | **0.99** |
| 9 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.73 | 0.76 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 11 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 13 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 25 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.79 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 27 | 0.14 | 0.32 | 0.49 | 0.63 | 0.73 | **0.82** | **0.87** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 29 | 0.14 | 0.34 | 0.52 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 30 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 35 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 40 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 50 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 55 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 60 | 0.25 | 0.60 | **0.82** | **0.93** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 80 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 100 | 0.38 | **0.82** | **0.96** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

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Table 119: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 3 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.60 | 0.73 | **0.82** |
| 5 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.59 | 0.65 | 0.75 | 0.79 | **0.82** | **0.91** | **0.96** |
| 7 | 0.06 | 0.12 | 0.16 | 0.21 | 0.26 | 0.31 | 0.35 | 0.40 | 0.44 | 0.48 | 0.52 | 0.56 | 0.59 | 0.63 | 0.66 | 0.67 | 0.74 | 0.79 | **0.87** | **0.90** | **0.93** | **0.98** | **0.99** |
| 9 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.73 | 0.76 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 11 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 13 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 25 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.79 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 27 | 0.14 | 0.32 | 0.49 | 0.63 | 0.73 | **0.82** | **0.87** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 29 | 0.14 | 0.34 | 0.52 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 30 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 35 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 40 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 50 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 55 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 60 | 0.25 | 0.60 | **0.82** | **0.93** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 80 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 100 | 0.38 | **0.82** | **0.96** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

$g$

Table 120: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.13 | 0.14 | 0.15 | 0.19 | 0.22 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.55 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.31 | 0.35 | 0.40 | 0.47 | 0.51 | 0.55 | 0.67 | 0.76 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.49 | 0.50 | 0.57 | 0.62 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 11 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.37 | 0.41 | 0.44 | 0.48 | 0.51 | 0.54 | 0.57 | 0.59 | 0.65 | 0.71 | **0.80** | **0.84** | **0.87** | **0.94** | **0.98** |
| 13 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 15 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.48 | 0.52 | 0.57 | 0.60 | 0.64 | 0.67 | 0.71 | 0.72 | 0.78 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 17 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.58 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 21 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.44 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 23 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.18 | 0.27 | 0.35 | 0.44 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.19 | 0.29 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.31 | 0.41 | 0.50 | 0.59 | 0.66 | 0.72 | 0.77 | **0.82** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.11 | 0.26 | 0.40 | 0.52 | 0.62 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.22 | 0.55 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 121: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.13 | 0.14 | 0.15 | 0.19 | 0.22 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.55 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.31 | 0.35 | 0.40 | 0.47 | 0.51 | 0.55 | 0.67 | 0.76 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.49 | 0.50 | 0.57 | 0.62 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 11 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.37 | 0.41 | 0.44 | 0.48 | 0.51 | 0.54 | 0.57 | 0.59 | 0.65 | 0.71 | **0.80** | **0.84** | **0.87** | **0.94** | **0.98** |
| 13 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 15 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.48 | 0.52 | 0.57 | 0.60 | 0.64 | 0.67 | 0.71 | 0.72 | 0.78 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 17 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.58 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 21 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.44 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 23 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.18 | 0.27 | 0.35 | 0.44 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.19 | 0.29 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.31 | 0.41 | 0.50 | 0.59 | 0.66 | 0.72 | 0.77 | **0.82** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.11 | 0.26 | 0.40 | 0.52 | 0.62 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.22 | 0.55 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 122: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.13 | 0.14 | 0.15 | 0.19 | 0.22 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.55 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.31 | 0.35 | 0.40 | 0.47 | 0.51 | 0.55 | 0.67 | 0.76 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.49 | 0.50 | 0.57 | 0.62 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 11 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.37 | 0.41 | 0.44 | 0.48 | 0.51 | 0.54 | 0.57 | 0.59 | 0.65 | 0.71 | **0.80** | **0.84** | **0.87** | **0.94** | **0.98** |
| 13 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 15 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.48 | 0.52 | 0.57 | 0.60 | 0.64 | 0.67 | 0.71 | 0.72 | 0.78 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 17 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.58 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 21 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.44 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 23 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.18 | 0.27 | 0.35 | 0.44 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.19 | 0.29 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.31 | 0.41 | 0.50 | 0.59 | 0.66 | 0.72 | 0.77 | **0.82** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.11 | 0.26 | 0.40 | 0.52 | 0.62 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.22 | 0.55 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 123: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.13 | 0.14 | 0.15 | 0.19 | 0.22 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.55 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.31 | 0.35 | 0.40 | 0.47 | 0.51 | 0.55 | 0.67 | 0.76 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.49 | 0.50 | 0.57 | 0.62 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 11 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.37 | 0.41 | 0.44 | 0.48 | 0.51 | 0.54 | 0.57 | 0.59 | 0.65 | 0.71 | **0.80** | **0.84** | **0.87** | **0.94** | **0.98** |
| 13 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 15 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.48 | 0.52 | 0.57 | 0.60 | 0.64 | 0.67 | 0.71 | 0.72 | 0.78 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 17 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.58 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 21 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.44 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 23 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.18 | 0.27 | 0.35 | 0.44 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.19 | 0.29 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.31 | 0.41 | 0.50 | 0.59 | 0.66 | 0.72 | 0.77 | **0.82** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.11 | 0.26 | 0.40 | 0.52 | 0.62 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.22 | 0.55 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 124: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.36 | 0.40 | 0.48 | 0.52 | 0.55 | 0.68 | 0.77 |
| 5 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 7 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.62 | 0.69 | 0.74 | **0.83** | **0.87** | **0.89** | **0.96** | **0.99** |
| 9 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.58 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 11 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.41 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 13 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 15 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 17 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.84** | **0.88** | **0.90** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.11 | 0.24 | 0.36 | 0.47 | 0.58 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.29 | 0.44 | 0.58 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.31 | 0.47 | 0.61 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.15 | 0.36 | 0.54 | 0.69 | 0.79 | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 125: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 5 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.35 | 0.42 | 0.45 | 0.48 | 0.60 | 0.70 |
| 7 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.54 | 0.58 | 0.62 | 0.74 | **0.83** |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 11 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.58 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 13 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.51 | 0.54 | 0.57 | 0.59 | 0.65 | 0.71 | **0.80** | **0.84** | **0.87** | **0.95** | **0.98** |
| 15 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.64 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 17 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.63 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 19 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.67 | 0.71 | 0.74 | 0.75 | **0.81** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 21 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** |
| 23 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.81** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.63 | 0.67 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 27 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 29 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.51 | 0.57 | 0.64 | 0.69 | 0.74 | 0.78 | **0.81** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 30 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 35 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.91** | **0.92** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.10 | 0.23 | 0.35 | 0.46 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 126: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.36 | 0.40 | 0.48 | 0.52 | 0.55 | 0.68 | 0.77 |
| 5 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 7 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.62 | 0.69 | 0.74 | **0.83** | **0.87** | **0.89** | **0.96** | **0.99** |
| 9 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.58 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 11 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.41 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 13 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 15 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 17 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 19 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.84** | **0.88** | **0.90** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 21 | 0.11 | 0.24 | 0.36 | 0.47 | 0.58 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 23 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 25 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 27 | 0.13 | 0.29 | 0.44 | 0.58 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 29 | 0.13 | 0.31 | 0.47 | 0.61 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 30 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 35 | 0.15 | 0.36 | 0.54 | 0.69 | 0.79 | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 40 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 50 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 55 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 60 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 80 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 100 | 0.35 | 0.77 | **0.94** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

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Table 127: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 5 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.35 | 0.42 | 0.45 | 0.48 | 0.60 | 0.70 |
| 7 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.54 | 0.58 | 0.62 | 0.74 | **0.83** |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 11 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.58 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 13 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.51 | 0.54 | 0.57 | 0.59 | 0.65 | 0.71 | **0.80** | **0.84** | **0.87** | **0.95** | **0.98** |
| 15 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.64 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 17 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.63 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 19 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.67 | 0.71 | 0.74 | 0.75 | **0.81** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 21 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** |
| 23 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.81** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | 1.00 | 1.00 |
| 25 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.63 | 0.67 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | 1.00 | 1.00 |
| 27 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 |
| 29 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.51 | 0.57 | 0.64 | 0.69 | 0.74 | 0.78 | **0.81** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 |
| 30 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 |
| 35 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.91** | **0.92** | **0.94** | **0.95** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 40 | 0.10 | 0.23 | 0.35 | 0.46 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 50 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 55 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 60 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 80 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 100 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

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Table 128: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 5 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.32 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.71 |
| 7 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 11 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.59 | 0.65 | 0.75 | 0.79 | **0.82** | **0.91** | **0.96** |
| 13 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.38 | 0.42 | 0.46 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.67 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 19 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.68 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 21 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 23 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.77 | **0.80** | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.64 | 0.68 | 0.73 | 0.77 | **0.80** | **0.83** | **0.85** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.08 | 0.17 | 0.25 | 0.34 | 0.42 | 0.49 | 0.55 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 29 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 30 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 129: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 | 0.12 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.23 | 0.28 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.24 | 0.26 | 0.32 | 0.34 | 0.37 | 0.47 | 0.55 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 11 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.75 |
| 13 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 15 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.87** |
| 17 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.90** |
| 19 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.38 | 0.41 | 0.43 | 0.46 | 0.47 | 0.53 | 0.59 | 0.68 | 0.73 | 0.76 | **0.87** | **0.93** |
| 21 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.51 | 0.57 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 23 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.48 | 0.51 | 0.53 | 0.55 | 0.61 | 0.67 | 0.77 | **0.80** | **0.84** | **0.92** | **0.97** |
| 25 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.33 | 0.37 | 0.41 | 0.44 | 0.48 | 0.51 | 0.54 | 0.57 | 0.58 | 0.65 | 0.71 | **0.80** | **0.84** | **0.87** | **0.94** | **0.98** |
| 27 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.28 | 0.32 | 0.36 | 0.40 | 0.43 | 0.47 | 0.51 | 0.54 | 0.57 | 0.60 | 0.62 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 29 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 30 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 35 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 40 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.78 | **0.84** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 50 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.64 | 0.68 | 0.73 | 0.77 | **0.80** | **0.83** | **0.85** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 55 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 60 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 130: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | $n$ | | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.21 | 0.23 | 0.28 | 0.30 | 0.32 | 0.41 | 0.49 |
| 5 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.32 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.71 |
| 7 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 11 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.59 | 0.65 | 0.75 | 0.79 | **0.82** | **0.91** | **0.96** |
| 13 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.38 | 0.42 | 0.46 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.67 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 19 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.68 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 21 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 23 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.77 | **0.80** | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.64 | 0.68 | 0.73 | 0.77 | **0.80** | **0.83** | **0.85** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.08 | 0.17 | 0.25 | 0.34 | 0.42 | 0.49 | 0.55 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 29 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 30 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 131: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 | 0.12 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.23 | 0.28 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.24 | 0.26 | 0.32 | 0.34 | 0.37 | 0.47 | 0.55 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 11 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.75 |
| 13 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 15 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.87** |
| 17 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.90** |
| 19 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.38 | 0.41 | 0.43 | 0.46 | 0.47 | 0.53 | 0.59 | 0.68 | 0.73 | 0.76 | **0.87** | **0.93** |
| 21 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.51 | 0.57 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 23 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.48 | 0.51 | 0.53 | 0.55 | 0.61 | 0.67 | 0.77 | **0.80** | **0.84** | **0.92** | **0.97** |
| 25 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.33 | 0.37 | 0.41 | 0.44 | 0.48 | 0.51 | 0.54 | 0.57 | 0.58 | 0.65 | 0.71 | **0.80** | **0.84** | **0.87** | **0.94** | **0.98** |
| 27 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.28 | 0.32 | 0.36 | 0.40 | 0.43 | 0.47 | 0.51 | 0.54 | 0.57 | 0.60 | 0.62 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 29 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 30 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 35 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 40 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.78 | **0.84** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 50 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.64 | 0.68 | 0.73 | 0.77 | **0.80** | **0.83** | **0.85** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 55 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 60 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g$

Table 132: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 | |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** | |
| 5 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** | |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.42 | 0.47 | 0.52 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** | |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | |
| 11 | 0.09 | 0.18 | 0.27 | 0.36 | 0.45 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | **0.80** | **0.83** | **0.86** | **0.88** | **0.91** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | |
| 13 | 0.10 | 0.21 | 0.31 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 15 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 17 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 19 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.75 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 21 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 23 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 25 | 0.15 | 0.35 | 0.54 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 27 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 29 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 30 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 35 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 40 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 50 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 55 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 60 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 80 | 0.37 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 100 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |

$g$

Table 133: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 | |
| 3 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 | |
| 5 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.45 | 0.54 | 0.57 | 0.61 | 0.74 | **0.83** | |
| 7 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.87** | **0.93** | |
| 9 | 0.06 | 0.10 | 0.14 | 0.18 | 0.21 | 0.25 | 0.29 | 0.32 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.55 | 0.57 | 0.63 | 0.69 | 0.78 | **0.82** | **0.85** | **0.94** | **0.97** | |
| 11 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.38 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.65 | 0.72 | 0.78 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** | |
| 13 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** | |
| 15 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.78 | **0.84** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** | |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | |
| 19 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.64 | 0.69 | 0.74 | 0.77 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | |
| 21 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | |
| 23 | 0.09 | 0.19 | 0.28 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.87** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 25 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | 1.00 | **1.00** | **1.00** | **1.00** | **1.00** | |
| 27 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | 1.00 | **1.00** | **1.00** | **1.00** | **1.00** | |
| 29 | 0.10 | 0.23 | 0.34 | 0.45 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | 1.00 | **1.00** | **1.00** | **1.00** | **1.00** | |
| 30 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | 1.00 | **1.00** | **1.00** | **1.00** | **1.00** | |
| 35 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | **1.00** | **1.00** | **1.00** | **1.00** | |
| 40 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | **1.00** | **1.00** | **1.00** | **1.00** | |
| 50 | 0.15 | 0.35 | 0.54 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 55 | 0.16 | 0.38 | 0.57 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 60 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 80 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 100 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |

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Table 134: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 | |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** | |
| 5 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** | |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.42 | 0.47 | 0.52 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** | |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | |
| 11 | 0.09 | 0.18 | 0.27 | 0.36 | 0.45 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | **0.80** | **0.83** | **0.86** | **0.88** | **0.91** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | |
| 13 | 0.10 | 0.21 | 0.31 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 15 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 17 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 19 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.75 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 21 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 23 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 25 | 0.15 | 0.35 | 0.54 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 27 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 29 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 30 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 35 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 40 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 50 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 55 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 60 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 80 | 0.37 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 100 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |

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Table 135: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 | |
| 3 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 | |
| 5 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.45 | 0.54 | 0.57 | 0.61 | 0.74 | **0.83** | |
| 7 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.87** | **0.93** | |
| 9 | 0.06 | 0.10 | 0.14 | 0.18 | 0.21 | 0.25 | 0.29 | 0.32 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.55 | 0.57 | 0.63 | 0.69 | 0.78 | **0.82** | **0.85** | **0.94** | **0.97** | |
| 11 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.38 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.65 | 0.72 | 0.78 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** | |
| 13 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** | |
| 15 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.78 | **0.84** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** | |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | |
| 19 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.64 | 0.69 | 0.74 | 0.77 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | |
| 21 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | |
| 23 | 0.09 | 0.19 | 0.28 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.87** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 25 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | 1.00 | **1.00** | **1.00** | **1.00** | **1.00** | |
| 27 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | 1.00 | **1.00** | **1.00** | **1.00** | **1.00** | |
| 29 | 0.10 | 0.23 | 0.34 | 0.45 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | 1.00 | **1.00** | **1.00** | **1.00** | **1.00** | |
| 30 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | 1.00 | **1.00** | **1.00** | **1.00** | **1.00** | |
| 35 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | 1.00 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 40 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 50 | 0.15 | 0.35 | 0.54 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 55 | 0.16 | 0.38 | 0.57 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | 1.00 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 60 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | 1.00 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 80 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 100 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |

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Table 136: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 3 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.63 |
| 5 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 7 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 9 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.33 | 0.37 | 0.41 | 0.44 | 0.47 | 0.51 | 0.54 | 0.57 | 0.58 | 0.65 | 0.71 | **0.80** | **0.83** | **0.87** | **0.94** | **0.98** |
| 11 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.31 | 0.35 | 0.39 | 0.44 | 0.48 | 0.52 | 0.55 | 0.59 | 0.62 | 0.65 | 0.67 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 13 | 0.07 | 0.13 | 0.18 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.59 | 0.63 | 0.66 | 0.69 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 15 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 17 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.09 | 0.19 | 0.29 | 0.39 | 0.47 | 0.55 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.10 | 0.21 | 0.31 | 0.41 | 0.51 | 0.59 | 0.66 | 0.72 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.76 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.79 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.86** | **0.90** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 50 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 55 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 60 | 0.17 | 0.42 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 80 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 100 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

Table 137: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.16 | 0.17 | 0.21 | 0.22 | 0.24 | 0.30 | 0.36 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.55 |
| 7 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.45 | 0.48 | 0.60 | 0.69 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.33 | 0.38 | 0.42 | 0.51 | 0.55 | 0.58 | 0.71 | **0.80** |
| 11 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.39 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 13 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 15 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.49 | 0.51 | 0.57 | 0.63 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 17 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.56 | 0.62 | 0.68 | 0.78 | **0.81** | **0.85** | **0.93** | **0.97** |
| 19 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.60 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 21 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 23 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 25 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.48 | 0.53 | 0.57 | 0.61 | 0.64 | 0.68 | 0.71 | 0.72 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | 1.00 |
| 27 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.42 | 0.47 | 0.51 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.96** | **0.99** | 1.00 |
| 29 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.79 | **0.84** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | 1.00 |
| 30 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | 1.00 | 1.00 |
| 35 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.86** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | 1.00 | 1.00 |
| 40 | 0.09 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 |
| 50 | 0.10 | 0.21 | 0.31 | 0.41 | 0.51 | 0.59 | 0.66 | 0.72 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 55 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 60 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 80 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 100 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

Table 138: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 3 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.63 |
| 5 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 7 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 9 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.33 | 0.37 | 0.41 | 0.44 | 0.47 | 0.51 | 0.54 | 0.57 | 0.58 | 0.65 | 0.71 | **0.80** | **0.83** | **0.87** | **0.94** | **0.98** |
| 11 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.31 | 0.35 | 0.39 | 0.44 | 0.48 | 0.52 | 0.55 | 0.59 | 0.62 | 0.65 | 0.67 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 13 | 0.07 | 0.13 | 0.18 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.59 | 0.63 | 0.66 | 0.69 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 15 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 17 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.09 | 0.19 | 0.29 | 0.39 | 0.47 | 0.55 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.10 | 0.21 | 0.31 | 0.41 | 0.51 | 0.59 | 0.66 | 0.72 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.76 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.79 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.86** | **0.90** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 50 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 55 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 60 | 0.17 | 0.42 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 80 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 100 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

Table 139: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.16 | 0.17 | 0.21 | 0.22 | 0.24 | 0.30 | 0.36 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.55 |
| 7 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.45 | 0.48 | 0.60 | 0.69 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.33 | 0.38 | 0.42 | 0.51 | 0.55 | 0.58 | 0.71 | **0.80** |
| 11 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.39 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 13 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 15 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.49 | 0.51 | 0.57 | 0.63 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 17 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.56 | 0.62 | 0.68 | 0.78 | **0.81** | **0.85** | **0.93** | **0.97** |
| 19 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.60 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 21 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 23 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 25 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.48 | 0.53 | 0.57 | 0.61 | 0.64 | 0.68 | 0.71 | 0.72 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | 1.00 |
| 27 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.42 | 0.47 | 0.51 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.96** | **0.99** | 1.00 |
| 29 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.79 | **0.84** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | 1.00 |
| 30 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | 1.00 | 1.00 |
| 35 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.86** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | 1.00 | 1.00 |
| 40 | 0.09 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 |
| 50 | 0.10 | 0.21 | 0.31 | 0.41 | 0.51 | 0.59 | 0.66 | 0.72 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 55 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 60 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 80 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 100 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

Table 140: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 | |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.32 | 0.36 | 0.44 | 0.47 | 0.50 | 0.62 | 0.72 | |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.44 | 0.49 | 0.55 | 0.64 | 0.68 | 0.72 | **0.84** | **0.91** | |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.21 | 0.25 | 0.29 | 0.32 | 0.36 | 0.39 | 0.43 | 0.46 | 0.49 | 0.52 | 0.55 | 0.57 | 0.63 | 0.69 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** | |
| 9 | 0.06 | 0.12 | 0.16 | 0.21 | 0.26 | 0.31 | 0.35 | 0.40 | 0.44 | 0.48 | 0.52 | 0.56 | 0.60 | 0.63 | 0.66 | 0.67 | 0.74 | **0.80** | **0.88** | **0.90** | **0.93** | **0.98** | **0.99** | |
| 11 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.42 | 0.47 | 0.52 | 0.56 | 0.61 | 0.65 | 0.68 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** | |
| 13 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** | |
| 15 | 0.08 | 0.16 | 0.25 | 0.32 | 0.40 | 0.47 | 0.54 | 0.60 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | |
| 17 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | |
| 19 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.64 | 0.70 | 0.75 | **0.80** | **0.83** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 21 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 23 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 25 | 0.11 | 0.25 | 0.37 | 0.49 | 0.60 | 0.68 | 0.75 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 27 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.72 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 29 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 30 | 0.12 | 0.29 | 0.44 | 0.57 | 0.67 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 35 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 40 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 50 | 0.18 | 0.44 | 0.64 | 0.78 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 55 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 60 | 0.21 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 80 | 0.26 | 0.62 | **0.84** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 100 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |

$g$

Table 141: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 | |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.32 | 0.36 | 0.44 | 0.47 | 0.50 | 0.62 | 0.72 | |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.44 | 0.49 | 0.55 | 0.64 | 0.68 | 0.72 | **0.84** | **0.91** | |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.21 | 0.25 | 0.29 | 0.32 | 0.36 | 0.39 | 0.43 | 0.46 | 0.49 | 0.52 | 0.55 | 0.57 | 0.63 | 0.69 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** | |
| 9 | 0.06 | 0.12 | 0.16 | 0.21 | 0.26 | 0.31 | 0.35 | 0.40 | 0.44 | 0.48 | 0.52 | 0.56 | 0.60 | 0.63 | 0.66 | 0.67 | 0.74 | **0.80** | **0.88** | **0.90** | **0.93** | **0.98** | **0.99** | |
| 11 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.42 | 0.47 | 0.52 | 0.56 | 0.61 | 0.65 | 0.68 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** | |
| 13 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** | |
| 15 | 0.08 | 0.16 | 0.25 | 0.32 | 0.40 | 0.47 | 0.54 | 0.60 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | |
| 17 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | |
| 19 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.64 | 0.70 | 0.75 | **0.80** | **0.83** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 21 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 23 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 25 | 0.11 | 0.25 | 0.37 | 0.49 | 0.60 | 0.68 | 0.75 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 27 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.72 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 29 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 30 | 0.12 | 0.29 | 0.44 | 0.57 | 0.67 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 35 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 40 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 50 | 0.18 | 0.44 | 0.64 | 0.78 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 55 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 60 | 0.21 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 80 | 0.26 | 0.62 | **0.84** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 100 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |

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Table 142: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.15 | 0.18 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.21 | 0.25 | 0.27 | 0.29 | 0.36 | 0.44 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.37 | 0.41 | 0.44 | 0.55 | 0.64 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.32 | 0.37 | 0.41 | 0.49 | 0.53 | 0.57 | 0.69 | 0.78 |
| 9 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.30 | 0.32 | 0.34 | 0.37 | 0.39 | 0.40 | 0.45 | 0.50 | 0.60 | 0.64 | 0.67 | **0.80** | **0.88** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.43 | 0.46 | 0.47 | 0.53 | 0.59 | 0.68 | 0.72 | 0.76 | **0.87** | **0.93** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.10 | 0.14 | 0.18 | 0.23 | 0.27 | 0.30 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 17 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.42 | 0.46 | 0.50 | 0.54 | 0.58 | 0.62 | 0.65 | 0.68 | 0.70 | 0.76 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.73 | 0.76 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 25 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.41 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.70 | 0.73 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.73 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 30 | 0.08 | 0.16 | 0.25 | 0.32 | 0.40 | 0.47 | 0.54 | 0.60 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 35 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.31 | 0.41 | 0.50 | 0.59 | 0.66 | 0.72 | 0.77 | **0.82** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.11 | 0.25 | 0.37 | 0.49 | 0.60 | 0.68 | 0.75 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.12 | 0.29 | 0.44 | 0.57 | 0.67 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.18 | 0.44 | 0.64 | 0.78 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 143: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.15 | 0.18 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.21 | 0.25 | 0.27 | 0.29 | 0.36 | 0.44 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.37 | 0.41 | 0.44 | 0.55 | 0.64 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.32 | 0.37 | 0.41 | 0.49 | 0.53 | 0.57 | 0.69 | 0.78 |
| 9 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.30 | 0.32 | 0.34 | 0.37 | 0.39 | 0.40 | 0.45 | 0.50 | 0.60 | 0.64 | 0.67 | **0.80** | **0.88** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.43 | 0.46 | 0.47 | 0.53 | 0.59 | 0.68 | 0.72 | 0.76 | **0.87** | **0.93** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.10 | 0.14 | 0.18 | 0.23 | 0.27 | 0.30 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 17 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.42 | 0.46 | 0.50 | 0.54 | 0.58 | 0.62 | 0.65 | 0.68 | 0.70 | 0.76 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.73 | 0.76 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 25 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.41 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.70 | 0.73 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.73 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 30 | 0.08 | 0.16 | 0.25 | 0.32 | 0.40 | 0.47 | 0.54 | 0.60 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 35 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.31 | 0.41 | 0.50 | 0.59 | 0.66 | 0.72 | 0.77 | **0.82** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.11 | 0.25 | 0.37 | 0.49 | 0.60 | 0.68 | 0.75 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.12 | 0.29 | 0.44 | 0.57 | 0.67 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.18 | 0.44 | 0.64 | 0.78 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 144: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.18 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.55 | 0.65 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | 0.79 |
| 9 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.60 | 0.65 | 0.68 | **0.80** | **0.88** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 13 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.28 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.67 | 0.76 | **0.80** | **0.83** | **0.92** | **0.97** |
| 15 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.42 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.60 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 17 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.61 | 0.64 | 0.66 | 0.73 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 19 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.63 | 0.66 | 0.69 | 0.71 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 21 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.55 | 0.60 | 0.64 | 0.67 | 0.70 | 0.74 | 0.75 | **0.81** | **0.86** | **0.92** | **0.95** | **0.96** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.20 | 0.26 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.59 | 0.64 | 0.67 | 0.71 | 0.74 | 0.77 | 0.79 | **0.85** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 25 | 0.08 | 0.15 | 0.22 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.64 | 0.69 | 0.74 | 0.77 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 30 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 35 | 0.09 | 0.19 | 0.28 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.87** | **0.90** | **0.92** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.13 | 0.29 | 0.44 | 0.58 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g$

Table 145: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.18 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.55 | 0.65 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | 0.79 |
| 9 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.60 | 0.65 | 0.68 | **0.80** | **0.88** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 13 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.28 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.67 | 0.76 | **0.80** | **0.83** | **0.92** | **0.97** |
| 15 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.42 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.60 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 17 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.61 | 0.64 | 0.66 | 0.73 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 19 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.63 | 0.66 | 0.69 | 0.71 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 21 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.55 | 0.60 | 0.64 | 0.67 | 0.70 | 0.74 | 0.75 | **0.81** | **0.86** | **0.92** | **0.95** | **0.96** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.20 | 0.26 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.59 | 0.64 | 0.67 | 0.71 | 0.74 | 0.77 | 0.79 | **0.85** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 25 | 0.08 | 0.15 | 0.22 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.64 | 0.69 | 0.74 | 0.77 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 30 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 35 | 0.09 | 0.19 | 0.28 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.87** | **0.90** | **0.92** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.13 | 0.29 | 0.44 | 0.58 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g$

Table 146: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 7 | 0.04 | 0.05 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.28 | 0.31 | 0.33 | 0.42 | 0.50 |
| 9 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.60 |
| 11 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.45 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.51 | 0.54 | 0.67 | 0.76 |
| 15 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.60 | 0.73 | **0.82** |
| 17 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 19 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.27 | 0.29 | 0.32 | 0.34 | 0.37 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 21 | 0.05 | 0.09 | 0.12 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.34 | 0.37 | 0.40 | 0.42 | 0.45 | 0.46 | 0.52 | 0.58 | 0.67 | 0.71 | 0.75 | **0.86** | **0.92** |
| 23 | 0.05 | 0.09 | 0.12 | 0.15 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.48 | 0.50 | 0.56 | 0.61 | 0.71 | 0.75 | 0.79 | **0.89** | **0.94** |
| 25 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.51 | 0.53 | 0.59 | 0.65 | 0.75 | 0.79 | **0.82** | **0.91** | **0.96** |
| 27 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.36 | 0.39 | 0.42 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.68 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 29 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.51 | 0.55 | 0.58 | 0.59 | 0.66 | 0.71 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 30 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.42 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.60 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 35 | 0.06 | 0.12 | 0.16 | 0.21 | 0.26 | 0.31 | 0.35 | 0.40 | 0.44 | 0.48 | 0.52 | 0.56 | 0.59 | 0.63 | 0.66 | 0.67 | 0.74 | 0.79 | **0.87** | **0.90** | **0.92** | **0.98** | **0.99** |
| 40 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.58 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 50 | 0.08 | 0.15 | 0.22 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 55 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 60 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 80 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 147: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 7 | 0.04 | 0.05 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.28 | 0.31 | 0.33 | 0.42 | 0.50 |
| 9 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.60 |
| 11 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.45 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.51 | 0.54 | 0.67 | 0.76 |
| 15 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.60 | 0.73 | **0.82** |
| 17 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 19 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.27 | 0.29 | 0.32 | 0.34 | 0.37 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 21 | 0.05 | 0.09 | 0.12 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.34 | 0.37 | 0.40 | 0.42 | 0.45 | 0.46 | 0.52 | 0.58 | 0.67 | 0.71 | 0.75 | **0.86** | **0.92** |
| 23 | 0.05 | 0.09 | 0.12 | 0.15 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.48 | 0.50 | 0.56 | 0.61 | 0.71 | 0.75 | 0.79 | **0.89** | **0.94** |
| 25 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.51 | 0.53 | 0.59 | 0.65 | 0.75 | 0.79 | **0.82** | **0.91** | **0.96** |
| 27 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.36 | 0.39 | 0.42 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.68 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 29 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.51 | 0.55 | 0.58 | 0.59 | 0.66 | 0.71 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 30 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.42 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.60 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 35 | 0.06 | 0.12 | 0.16 | 0.21 | 0.26 | 0.31 | 0.35 | 0.40 | 0.44 | 0.48 | 0.52 | 0.56 | 0.59 | 0.63 | 0.66 | 0.67 | 0.74 | 0.79 | **0.87** | **0.90** | **0.92** | **0.98** | **0.99** |
| 40 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.58 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 50 | 0.08 | 0.15 | 0.22 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 55 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 60 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 80 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 148: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.32 | 0.39 | |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.45 | 0.54 | 0.58 | 0.62 | 0.74 | **0.83** | |
| 5 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.37 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.60 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** | |
| 7 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** | |
| 9 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.59 | 0.64 | 0.68 | 0.71 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** | |
| 11 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | |
| 13 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | |
| 15 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 17 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 19 | 0.11 | 0.25 | 0.37 | 0.49 | 0.59 | 0.68 | 0.75 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 21 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 23 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 25 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 27 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 29 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 30 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 35 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 40 | 0.19 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 50 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 55 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 60 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 80 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 100 | 0.39 | **0.83** | **0.96** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |

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Table 149: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.32 | 0.39 | |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.45 | 0.54 | 0.58 | 0.62 | 0.74 | **0.83** | |
| 5 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.37 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.60 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** | |
| 7 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** | |
| 9 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.59 | 0.64 | 0.68 | 0.71 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** | |
| 11 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | |
| 13 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | |
| 15 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 17 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 19 | 0.11 | 0.25 | 0.37 | 0.49 | 0.59 | 0.68 | 0.75 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 21 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 23 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 25 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 27 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 29 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 30 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 35 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 40 | 0.19 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 50 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 55 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 60 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 80 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 100 | 0.39 | **0.83** | **0.96** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |

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Table 150: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.19 | 0.22 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.33 | 0.36 | 0.45 | 0.54 |
| 5 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.51 | 0.54 | 0.66 | 0.76 |
| 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.60 | 0.65 | 0.68 | **0.80** | **0.88** |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.48 | 0.50 | 0.56 | 0.62 | 0.71 | 0.75 | 0.79 | **0.89** | **0.95** |
| 11 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.33 | 0.37 | 0.41 | 0.44 | 0.47 | 0.51 | 0.54 | 0.57 | 0.58 | 0.65 | 0.70 | **0.80** | **0.83** | **0.86** | **0.94** | **0.98** |
| 13 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.30 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 15 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.41 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 21 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 23 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.47 | 0.54 | 0.60 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.51 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.19 | 0.28 | 0.37 | 0.46 | 0.54 | 0.61 | 0.67 | 0.72 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.96** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.48 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.14 | 0.33 | 0.51 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.19 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 151: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.19 | 0.22 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.33 | 0.36 | 0.45 | 0.54 |
| 5 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.51 | 0.54 | 0.66 | 0.76 |
| 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.60 | 0.65 | 0.68 | **0.80** | **0.88** |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.48 | 0.50 | 0.56 | 0.62 | 0.71 | 0.75 | 0.79 | **0.89** | **0.95** |
| 11 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.33 | 0.37 | 0.41 | 0.44 | 0.47 | 0.51 | 0.54 | 0.57 | 0.58 | 0.65 | 0.70 | **0.80** | **0.83** | **0.86** | **0.94** | **0.98** |
| 13 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.30 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 15 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.41 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 21 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 23 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.47 | 0.54 | 0.60 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.51 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.19 | 0.28 | 0.37 | 0.46 | 0.54 | 0.61 | 0.67 | 0.72 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.96** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.48 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.14 | 0.33 | 0.51 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.19 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 152: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.19 | 0.23 |
| 3 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.37 | 0.46 | 0.55 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.31 | 0.36 | 0.40 | 0.48 | 0.52 | 0.55 | 0.67 | 0.77 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.36 | 0.38 | 0.40 | 0.42 | 0.47 | 0.52 | 0.62 | 0.66 | 0.70 | **0.81** | **0.89** |
| 9 | 0.06 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.51 | 0.57 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 11 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 13 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.66 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 15 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 17 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.73 | 0.76 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.15 | 0.22 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 21 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.63 | 0.67 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 23 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.67 | 0.71 | 0.76 | 0.79 | **0.82** | **0.85** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.31 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.31 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 153: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.19 | 0.23 |
| 3 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.37 | 0.46 | 0.55 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.31 | 0.36 | 0.40 | 0.48 | 0.52 | 0.55 | 0.67 | 0.77 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.36 | 0.38 | 0.40 | 0.42 | 0.47 | 0.52 | 0.62 | 0.66 | 0.70 | **0.81** | **0.89** |
| 9 | 0.06 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.51 | 0.57 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 11 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 13 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.66 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 15 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 17 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.73 | 0.76 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.15 | 0.22 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 21 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.63 | 0.67 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 23 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.67 | 0.71 | 0.76 | 0.79 | **0.82** | **0.85** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.31 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.31 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 154: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | $n$ | | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.31 | 0.40 | 0.48 |
| 7 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.23 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.52 | 0.62 |
| 9 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 11 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 13 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.59 | 0.63 | 0.66 | 0.79 | **0.87** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 17 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.28 | 0.31 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.47 | 0.49 | 0.55 | 0.60 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 19 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.65 | 0.75 | 0.79 | **0.82** | **0.91** | **0.96** |
| 21 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.97** |
| 23 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.53 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.82** | **0.86** | **0.89** | **0.96** | **0.98** |
| 25 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 27 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 29 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 30 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 35 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.71 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** |
| 40 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 50 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 55 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.10 | 0.21 | 0.31 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.13 | 0.31 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g$

Table 155: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | $n$ | | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.31 | 0.40 | 0.48 |
| 7 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.23 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.52 | 0.62 |
| 9 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 11 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 13 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.59 | 0.63 | 0.66 | 0.79 | **0.87** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 17 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.28 | 0.31 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.47 | 0.49 | 0.55 | 0.60 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 19 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.65 | 0.75 | 0.79 | **0.82** | **0.91** | **0.96** |
| 21 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.97** |
| 23 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.53 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.82** | **0.86** | **0.89** | **0.96** | **0.98** |
| 25 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 27 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 29 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 30 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 35 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.71 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** |
| 40 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 50 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 55 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.10 | 0.21 | 0.31 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.13 | 0.31 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g$

Table 156: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.40 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.34 | 0.77 | **0.94** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.37 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.42 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 157: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.40 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.34 | 0.77 | **0.94** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.37 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.42 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 158: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.40 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.34 | 0.77 | **0.94** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.37 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.42 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 159: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.40 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.34 | 0.77 | **0.94** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.37 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.42 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 160: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | **0.80** | **0.83** | **0.86** | **0.94** | **0.98** |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.19 | 0.47 | 0.68 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.21 | 0.50 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.27 | 0.64 | **0.85** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 161: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | **0.80** | **0.83** | **0.86** | **0.94** | **0.98** |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.19 | 0.47 | 0.68 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.21 | 0.50 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.27 | 0.64 | **0.85** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 162: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 | |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | **0.80** | **0.83** | **0.86** | **0.94** | **0.98** | |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | |
| 7 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | |
| 9 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 11 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 13 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 15 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 17 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 19 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 21 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 23 | 0.19 | 0.47 | 0.68 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 25 | 0.21 | 0.50 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 27 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 29 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 30 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 35 | 0.27 | 0.64 | **0.85** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 40 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 50 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 55 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 60 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 80 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 100 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |

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Table 163: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 | |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | **0.80** | **0.83** | **0.86** | **0.94** | **0.98** | |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | |
| 7 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | |
| 9 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 11 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 13 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 15 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 17 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 19 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 21 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 23 | 0.19 | 0.47 | 0.68 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 25 | 0.21 | 0.50 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 27 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 29 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 30 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 35 | 0.27 | 0.64 | **0.85** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 40 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 50 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 55 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 60 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 80 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 100 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |

$g$

Table 164: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.35 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 165: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.35 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 166: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.35 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 167: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.35 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 168: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.10 | 0.22 | 0.33 | 0.43 | 0.53 | 0.61 | 0.69 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.36 | 0.54 | 0.69 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.40 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.26 | 0.63 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g$

Table 169: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.10 | 0.22 | 0.33 | 0.43 | 0.53 | 0.61 | 0.69 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.36 | 0.54 | 0.69 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.40 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.26 | 0.63 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g$

Table 170: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.10 | 0.22 | 0.33 | 0.43 | 0.53 | 0.61 | 0.69 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.36 | 0.54 | 0.69 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.40 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.26 | 0.63 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 171: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.10 | 0.22 | 0.33 | 0.43 | 0.53 | 0.61 | 0.69 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.36 | 0.54 | 0.69 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.40 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.26 | 0.63 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 172: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.40 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g$

Table 173: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.55 | 0.65 |
| 3 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.59 | 0.60 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 5 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.74 | 0.78 | **0.80** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.09 | 0.19 | 0.28 | 0.37 | 0.46 | 0.54 | 0.61 | 0.67 | 0.72 | 0.77 | **0.81** | **0.84** | **0.87** | **0.90** | **0.91** | **0.92** | **0.96** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.72 | 0.78 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.16 | 0.39 | 0.58 | 0.72 | **0.82** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.32 | 0.73 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 174: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.40 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g$

Table 175: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.55 | 0.65 |
| 3 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.59 | 0.60 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 5 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.74 | 0.78 | **0.80** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.09 | 0.19 | 0.28 | 0.37 | 0.46 | 0.54 | 0.61 | 0.67 | 0.72 | 0.77 | **0.81** | **0.84** | **0.87** | **0.90** | **0.91** | **0.92** | **0.96** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.72 | 0.78 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.16 | 0.39 | 0.58 | 0.72 | **0.82** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.32 | 0.73 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 176: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.27 | 0.31 | 0.35 | 0.42 | 0.45 | 0.48 | 0.60 | 0.70 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.30 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 5 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.66 | 0.72 | 0.77 | **0.82** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.13 | 0.30 | 0.45 | 0.58 | 0.69 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.34 | 0.52 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.38 | 0.57 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.17 | 0.42 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.19 | 0.46 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 177: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.18 | 0.20 | 0.24 | 0.25 | 0.27 | 0.35 | 0.42 |
| 3 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.86** |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.37 | 0.40 | 0.43 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.97** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.39 | 0.43 | 0.48 | 0.52 | 0.57 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 9 | 0.08 | 0.15 | 0.22 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.08 | 0.17 | 0.25 | 0.34 | 0.41 | 0.49 | 0.55 | 0.61 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.09 | 0.19 | 0.29 | 0.39 | 0.47 | 0.55 | 0.62 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.88** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.10 | 0.22 | 0.33 | 0.43 | 0.53 | 0.61 | 0.69 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.12 | 0.28 | 0.43 | 0.57 | 0.67 | 0.76 | **0.83** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.16 | 0.38 | 0.57 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.18 | 0.43 | 0.64 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 178: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.27 | 0.31 | 0.35 | 0.42 | 0.45 | 0.48 | 0.60 | 0.70 | |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.30 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** | |
| 5 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | |
| 7 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.66 | 0.72 | 0.77 | **0.82** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 9 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 11 | 0.13 | 0.30 | 0.45 | 0.58 | 0.69 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 13 | 0.14 | 0.34 | 0.52 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 15 | 0.16 | 0.38 | 0.57 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 17 | 0.17 | 0.42 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 19 | 0.19 | 0.46 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 21 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 23 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 25 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 27 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 29 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 30 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 35 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 40 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 50 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 55 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 60 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 80 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 100 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |

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Table 179: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.18 | 0.20 | 0.24 | 0.25 | 0.27 | 0.35 | 0.42 | |
| 3 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.86** | |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.37 | 0.40 | 0.43 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.97** | |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.39 | 0.43 | 0.48 | 0.52 | 0.57 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** | |
| 9 | 0.08 | 0.15 | 0.22 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** | |
| 11 | 0.08 | 0.17 | 0.25 | 0.34 | 0.41 | 0.49 | 0.55 | 0.61 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | |
| 13 | 0.09 | 0.19 | 0.29 | 0.39 | 0.47 | 0.55 | 0.62 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.88** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 15 | 0.10 | 0.22 | 0.33 | 0.43 | 0.53 | 0.61 | 0.69 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 17 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 19 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 21 | 0.12 | 0.28 | 0.43 | 0.57 | 0.67 | 0.76 | **0.83** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 23 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 25 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 27 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 29 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 30 | 0.16 | 0.38 | 0.57 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 35 | 0.18 | 0.43 | 0.64 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 40 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 50 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 55 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 60 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 80 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 100 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |

$g$

Table 180: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.37 | 0.41 | 0.44 | 0.47 | 0.50 | 0.52 | 0.54 | 0.60 | 0.66 | 0.76 | 0.79 | **0.83** | **0.92** | **0.96** |
| 3 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.24 | 0.58 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 181: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.50 | 0.54 | 0.66 | 0.76 |
| 3 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 5 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.73 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.72 | 0.78 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.43 | 0.63 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.52 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 182: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | n | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.37 | 0.41 | 0.44 | 0.47 | 0.50 | 0.52 | 0.54 | 0.60 | 0.66 | 0.76 | 0.79 | **0.83** | **0.92** | **0.96** |
| 3 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.24 | 0.58 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 183: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | n | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.50 | 0.54 | 0.66 | 0.76 |
| 3 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 5 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.73 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.72 | 0.78 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.43 | 0.63 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.52 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 184: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.07 | 0.09 | 0.11 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.53 | 0.56 | 0.60 | 0.73 | **0.82** |
| 3 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.78 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.64 | 0.70 | 0.75 | **0.80** | **0.83** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.16 | 0.38 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.18 | 0.43 | 0.64 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 185: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.53 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.47 | 0.48 | 0.55 | 0.60 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 5 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.42 | 0.46 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.68 | 0.70 | 0.76 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.09 | 0.18 | 0.27 | 0.36 | 0.45 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.37 | 0.49 | 0.59 | 0.68 | 0.75 | **0.81** | **0.85** | **0.89** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.12 | 0.27 | 0.42 | 0.55 | 0.65 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.14 | 0.33 | 0.51 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.15 | 0.36 | 0.55 | 0.69 | 0.79 | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.18 | 0.45 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.22 | 0.55 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 186: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.07 | 0.09 | 0.11 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.53 | 0.56 | 0.60 | 0.73 | **0.82** |
| 3 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.78 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.64 | 0.70 | 0.75 | **0.80** | **0.83** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.16 | 0.38 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.18 | 0.43 | 0.64 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 187: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.53 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.47 | 0.48 | 0.55 | 0.60 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 5 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.42 | 0.46 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.68 | 0.70 | 0.76 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.09 | 0.18 | 0.27 | 0.36 | 0.45 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.37 | 0.49 | 0.59 | 0.68 | 0.75 | **0.81** | **0.85** | **0.89** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.12 | 0.27 | 0.42 | 0.55 | 0.65 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.14 | 0.33 | 0.51 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.15 | 0.36 | 0.55 | 0.69 | 0.79 | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.18 | 0.45 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.22 | 0.55 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 188: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | $n$ | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.39 | 0.40 | 0.46 | 0.51 | 0.60 | 0.64 | 0.68 | **0.80** | **0.88** |
| 3 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.72 | 0.78 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.50 | 0.72 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g$

Table 189: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | $n$ | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.39 | 0.40 | 0.46 | 0.51 | 0.60 | 0.64 | 0.68 | **0.80** | **0.88** |
| 3 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.72 | 0.78 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.50 | 0.72 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 190: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.40 | 0.51 | 0.60 |
| 3 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.56 | 0.62 | 0.68 | 0.78 | **0.81** | **0.85** | **0.93** | **0.97** |
| 5 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 7 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.88** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.49 | 0.60 | 0.68 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.19 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.20 | 0.48 | 0.70 | **0.84** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.26 | 0.62 | **0.84** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 191: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.40 | 0.51 | 0.60 |
| 3 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.56 | 0.62 | 0.68 | 0.78 | **0.81** | **0.85** | **0.93** | **0.97** |
| 5 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 7 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.88** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.49 | 0.60 | 0.68 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.19 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.20 | 0.48 | 0.70 | **0.84** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.26 | 0.62 | **0.84** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g$

Table 192: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.38 | 0.41 | 0.44 | 0.55 | 0.65 |
| 3 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.59 | 0.60 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 5 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.09 | 0.19 | 0.28 | 0.37 | 0.46 | 0.54 | 0.61 | 0.67 | 0.72 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.96** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.47 | 0.61 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.15 | 0.35 | 0.53 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.16 | 0.39 | 0.58 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.23 | 0.56 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.31 | 0.73 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 193: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.38 | 0.41 | 0.44 | 0.55 | 0.65 |
| 3 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.59 | 0.60 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 5 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.09 | 0.19 | 0.28 | 0.37 | 0.46 | 0.54 | 0.61 | 0.67 | 0.72 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.96** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.47 | 0.61 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.15 | 0.35 | 0.53 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.16 | 0.39 | 0.58 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.23 | 0.56 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.31 | 0.73 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 194: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 | |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.53 | 0.56 | 0.60 | 0.73 | **0.82** | |
| 5 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.43 | 0.45 | 0.48 | 0.51 | 0.53 | 0.59 | 0.65 | 0.74 | 0.78 | **0.82** | **0.91** | **0.96** | |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.44 | 0.48 | 0.52 | 0.55 | 0.59 | 0.62 | 0.65 | 0.67 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** | |
| 9 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** | |
| 11 | 0.08 | 0.16 | 0.23 | 0.30 | 0.38 | 0.44 | 0.51 | 0.56 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.51 | 0.57 | 0.64 | 0.69 | 0.74 | 0.78 | **0.81** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | |
| 15 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.64 | 0.70 | 0.75 | **0.80** | **0.83** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 17 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.84** | **0.88** | **0.90** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 19 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 21 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 23 | 0.12 | 0.28 | 0.43 | 0.55 | 0.66 | 0.75 | **0.81** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 25 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 27 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 29 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 30 | 0.15 | 0.35 | 0.53 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 35 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 40 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 50 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 55 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 60 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 80 | 0.31 | 0.73 | **0.91** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 100 | 0.38 | **0.82** | **0.96** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |

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Table 195: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 | |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.53 | 0.56 | 0.60 | 0.73 | **0.82** | |
| 5 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.43 | 0.45 | 0.48 | 0.51 | 0.53 | 0.59 | 0.65 | 0.74 | 0.78 | **0.82** | **0.91** | **0.96** | |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.44 | 0.48 | 0.52 | 0.55 | 0.59 | 0.62 | 0.65 | 0.67 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** | |
| 9 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** | |
| 11 | 0.08 | 0.16 | 0.23 | 0.30 | 0.38 | 0.44 | 0.51 | 0.56 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.51 | 0.57 | 0.64 | 0.69 | 0.74 | 0.78 | **0.81** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | |
| 15 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.64 | 0.70 | 0.75 | **0.80** | **0.83** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 17 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.84** | **0.88** | **0.90** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 19 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 21 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 23 | 0.12 | 0.28 | 0.43 | 0.55 | 0.66 | 0.75 | **0.81** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 25 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 27 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 29 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 30 | 0.15 | 0.35 | 0.53 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 35 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 40 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 50 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 55 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 60 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 80 | 0.31 | 0.73 | **0.91** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 100 | 0.38 | **0.82** | **0.96** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |

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Table 196: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | $n$ | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.47 | 0.48 | 0.55 | 0.60 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 3 | 0.09 | 0.18 | 0.27 | 0.36 | 0.45 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | **0.80** | **0.83** | **0.86** | **0.88** | **0.91** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.12 | 0.27 | 0.42 | 0.55 | 0.65 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.45 | 0.65 | **0.80** | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.45 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g$

Table 197: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | $n$ | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.47 | 0.48 | 0.55 | 0.60 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 3 | 0.09 | 0.18 | 0.27 | 0.36 | 0.45 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | **0.80** | **0.83** | **0.86** | **0.88** | **0.91** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.12 | 0.27 | 0.42 | 0.55 | 0.65 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.45 | 0.65 | **0.80** | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.45 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g$

Table 198: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.27 | 0.31 | 0.35 | 0.42 | 0.45 | 0.48 | 0.60 | 0.70 | |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.38 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.65 | 0.72 | 0.78 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** | |
| 5 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | |
| 7 | 0.10 | 0.21 | 0.31 | 0.41 | 0.50 | 0.59 | 0.66 | 0.72 | 0.77 | **0.82** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 9 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.77 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 11 | 0.13 | 0.30 | 0.45 | 0.59 | 0.69 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 13 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 15 | 0.16 | 0.38 | 0.57 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 17 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 19 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 21 | 0.21 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 23 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 25 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 27 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 29 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 30 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 35 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 40 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 50 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 55 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 60 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 80 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 100 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |

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Table 199: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.27 | 0.31 | 0.35 | 0.42 | 0.45 | 0.48 | 0.60 | 0.70 | |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.38 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.65 | 0.72 | 0.78 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** | |
| 5 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | |
| 7 | 0.10 | 0.21 | 0.31 | 0.41 | 0.50 | 0.59 | 0.66 | 0.72 | 0.77 | **0.82** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 9 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.77 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 11 | 0.13 | 0.30 | 0.45 | 0.59 | 0.69 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 13 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 15 | 0.16 | 0.38 | 0.57 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 17 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 19 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 21 | 0.21 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 23 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 25 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 27 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 29 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 30 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 35 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 40 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 50 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 55 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 60 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 80 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 100 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |

$g$

Table 200: Power Table for $\beta_{00}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.50 | 0.54 | 0.66 | 0.75 | |
| 3 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.66 | 0.70 | 0.71 | 0.77 | **0.83** | **0.90** | **0.93** | **0.94** | **0.98** | **1.00** | |
| 5 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | |
| 7 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | |
| 9 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 11 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 15 | 0.18 | 0.43 | 0.63 | 0.77 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 17 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 19 | 0.21 | 0.52 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 21 | 0.23 | 0.56 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 23 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 25 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 27 | 0.28 | 0.66 | **0.87** | **0.95** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 29 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 30 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 35 | 0.35 | 0.77 | **0.94** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 40 | 0.39 | **0.83** | **0.96** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 50 | 0.47 | **0.90** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 55 | 0.50 | **0.93** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 60 | 0.54 | **0.94** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 80 | 0.66 | **0.98** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 100 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |

$g$

Table 201: Power Table for $\beta_{10}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 | |
| 1 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.50 | 0.54 | 0.66 | 0.75 | |
| 3 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.66 | 0.70 | 0.71 | 0.77 | **0.83** | **0.90** | **0.93** | **0.94** | **0.98** | **1.00** | |
| 5 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | |
| 7 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 9 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 11 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 15 | 0.18 | 0.43 | 0.63 | 0.77 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 17 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 19 | 0.21 | 0.52 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 21 | 0.23 | 0.56 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 23 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 25 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 27 | 0.28 | 0.66 | **0.87** | **0.95** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 29 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 30 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 35 | 0.35 | 0.77 | **0.94** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 40 | 0.39 | **0.83** | **0.96** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 50 | 0.47 | **0.90** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 55 | 0.50 | **0.93** | **0.99** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 60 | 0.54 | **0.94** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 80 | 0.66 | **0.98** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 100 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |

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Table 202: Power Table for $\beta_{01}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.26 | 0.28 | 0.31 | 0.39 | 0.47 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.21 | 0.24 | 0.27 | 0.29 | 0.32 | 0.34 | 0.37 | 0.39 | 0.42 | 0.43 | 0.48 | 0.54 | 0.63 | 0.67 | 0.71 | **0.83** | **0.90** |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.33 | 0.37 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.59 | 0.62 | 0.63 | 0.70 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 7 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 9 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.09 | 0.19 | 0.28 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.87** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.10 | 0.21 | 0.33 | 0.43 | 0.53 | 0.61 | 0.68 | 0.74 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.74 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.18 | 0.43 | 0.63 | 0.77 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.22 | 0.54 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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Table 203: Power Table for $\beta_{11}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.26 | 0.28 | 0.31 | 0.39 | 0.47 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.21 | 0.24 | 0.27 | 0.29 | 0.32 | 0.34 | 0.37 | 0.39 | 0.42 | 0.43 | 0.48 | 0.54 | 0.63 | 0.67 | 0.71 | **0.83** | **0.90** |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.33 | 0.37 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.59 | 0.62 | 0.63 | 0.70 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 7 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 9 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.09 | 0.19 | 0.28 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.87** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.10 | 0.21 | 0.33 | 0.43 | 0.53 | 0.61 | 0.68 | 0.74 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.74 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.18 | 0.43 | 0.63 | 0.77 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.22 | 0.54 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

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# Appendix B.3 Level-3 Power Tables

Table 204: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.34 | 0.37 | 0.40 | 0.51 | 0.60 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.24 | 0.59 | **0.80** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 205: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.34 | 0.37 | 0.40 | 0.51 | 0.60 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.24 | 0.59 | **0.80** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 206: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.34 | 0.44 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.36 | 0.40 | 0.45 | 0.54 | 0.58 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.48 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.77 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 207: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.34 | 0.44 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.36 | 0.40 | 0.45 | 0.54 | 0.58 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.48 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.77 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 208: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.90** | **0.95** |
| 11 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 15 | 0.09 | 0.18 | 0.27 | 0.36 | 0.45 | 0.52 | 0.59 | 0.65 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.34 | 0.45 | 0.54 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 209: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.90** | **0.95** |
| 11 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 15 | 0.09 | 0.18 | 0.27 | 0.36 | 0.45 | 0.52 | 0.59 | 0.65 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.34 | 0.45 | 0.54 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 210: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.34 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 211: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.34 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 212: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.26 | 0.29 | 0.31 | 0.39 | 0.47 |
| 7 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.46 | 0.52 | 0.57 | 0.67 | 0.71 | 0.75 | **0.86** | **0.92** |
| 11 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.62 | 0.69 | 0.74 | **0.83** | **0.87** | **0.89** | **0.96** | **0.99** |
| 13 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 15 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.81** | **0.83** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 17 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.64 | 0.70 | 0.75 | **0.80** | **0.83** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.24 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.19 | 0.47 | 0.68 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 213: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.26 | 0.29 | 0.31 | 0.39 | 0.47 |
| 7 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.46 | 0.52 | 0.57 | 0.67 | 0.71 | 0.75 | **0.86** | **0.92** |
| 11 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.62 | 0.69 | 0.74 | **0.83** | **0.87** | **0.89** | **0.96** | **0.99** |
| 13 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 15 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.81** | **0.83** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 17 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.64 | 0.70 | 0.75 | **0.80** | **0.83** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.24 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.19 | 0.47 | 0.68 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 214: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.22 | 0.27 |
| 7 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.40 | 0.43 | 0.46 | 0.57 | 0.67 |
| 11 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.62 | 0.75 | **0.83** |
| 13 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 15 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 17 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.42 | 0.46 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.68 | 0.70 | 0.76 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 19 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** |
| 21 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.64 | 0.68 | 0.73 | 0.77 | **0.80** | **0.83** | **0.85** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 23 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.92** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.19 | 0.46 | 0.66 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 215: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.22 | 0.27 |
| 7 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.40 | 0.43 | 0.46 | 0.57 | 0.67 |
| 11 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.62 | 0.75 | **0.83** |
| 13 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 15 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 17 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.42 | 0.46 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.68 | 0.70 | 0.76 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 19 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** |
| 21 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.64 | 0.68 | 0.73 | 0.77 | **0.80** | **0.83** | **0.85** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 23 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.92** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.19 | 0.46 | 0.66 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 216: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 5 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 7 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.38 | 0.41 | 0.44 | 0.55 | 0.64 |
| 9 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 11 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.90** | **0.96** |
| 13 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 15 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 17 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.64 | 0.69 | 0.74 | 0.77 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.19 | 0.29 | 0.39 | 0.47 | 0.55 | 0.62 | 0.69 | 0.74 | 0.79 | **0.82** | **0.86** | **0.88** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.23 | 0.34 | 0.45 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.16 | 0.39 | 0.58 | 0.72 | **0.82** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 217: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 9 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 11 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.73 |
| 13 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.29 | 0.31 | 0.33 | 0.35 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 15 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 17 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.71 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 21 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 23 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.65 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 25 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.84** | **0.88** | **0.90** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.13 | 0.30 | 0.45 | 0.59 | 0.69 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 218: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 9 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 11 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 13 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 15 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 17 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 21 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 23 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.20 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.75 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 219: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.09 | 0.11 | 0.13 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 9 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 13 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 15 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 17 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 19 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.46 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 21 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 23 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.55 | 0.62 | 0.68 | 0.77 | **0.81** | **0.84** | **0.93** | **0.97** |
| 25 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.63 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 27 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.65 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 29 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.67 | 0.71 | 0.74 | 0.75 | **0.81** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 30 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 35 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.30 | 0.46 | 0.60 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.26 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 220: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.22 | 0.27 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.60 |
| 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.30 | 0.32 | 0.34 | 0.37 | 0.39 | 0.40 | 0.45 | 0.50 | 0.60 | 0.64 | 0.67 | **0.80** | **0.88** |
| 9 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.42 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 11 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 13 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.66 | 0.71 | 0.76 | 0.79 | **0.82** | **0.85** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 15 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.79 | **0.83** | **0.86** | **0.89** | **0.92** | **0.93** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.34 | 0.77 | **0.94** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 221: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.34 | 0.37 | 0.40 | 0.50 | 0.60 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.53 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.53 | 0.57 | 0.60 | 0.61 | 0.68 | 0.73 | **0.82** | **0.86** | **0.89** | **0.96** | **0.98** |
| 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.49 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.73 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.31 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 222: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.37 | 0.40 | 0.51 | 0.60 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.32 | 0.36 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | **0.80** | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.74 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 223: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.36 | 0.40 | 0.45 | 0.54 | 0.58 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.76 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 224: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.34 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.91** | **0.96** |
| 11 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.83** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 15 | 0.09 | 0.18 | 0.28 | 0.36 | 0.45 | 0.52 | 0.59 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 225: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.34 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.73 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.46 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.66 | 0.74 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.73 | **0.82** | **0.87** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.41 | 0.61 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 226: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.34 | 0.37 | 0.45 | 0.49 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.47 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.38 | 0.44 | 0.51 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 227: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 7 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.20 | 0.25 | 0.30 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 11 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 13 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.50 | 0.54 | 0.66 | 0.75 |
| 15 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.29 | 0.31 | 0.33 | 0.35 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 17 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.54 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 19 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.29 | 0.32 | 0.36 | 0.39 | 0.43 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.69 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 21 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 23 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 25 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 30 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 35 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 228: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 5 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.38 | 0.41 | 0.44 | 0.55 | 0.64 |
| 9 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.43 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 11 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.91** | **0.96** |
| 13 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.61 | 0.64 | 0.66 | 0.73 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 15 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 17 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.69 | 0.74 | 0.77 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.19 | 0.29 | 0.39 | 0.47 | 0.55 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.23 | 0.35 | 0.46 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.13 | 0.30 | 0.46 | 0.60 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.16 | 0.39 | 0.58 | 0.72 | **0.82** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.26 | 0.63 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 229: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 5 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.38 | 0.41 | 0.44 | 0.55 | 0.64 |
| 9 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.43 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 11 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.91** | **0.96** |
| 13 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.61 | 0.64 | 0.66 | 0.73 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 15 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 17 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.69 | 0.74 | 0.77 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.19 | 0.29 | 0.39 | 0.47 | 0.55 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.23 | 0.35 | 0.46 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.13 | 0.30 | 0.46 | 0.60 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.16 | 0.39 | 0.58 | 0.72 | **0.82** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.26 | 0.63 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 230: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 9 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.38 | 0.47 | 0.56 |
| 11 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 13 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 15 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.75 | 0.78 | **0.88** | **0.94** |
| 17 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 21 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 23 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.75 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.11 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 231: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 9 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.38 | 0.47 | 0.56 |
| 11 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 13 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 15 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.75 | 0.78 | **0.88** | **0.94** |
| 17 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 21 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 23 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.75 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.11 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 232: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.30 | 0.32 | 0.34 | 0.37 | 0.39 | 0.40 | 0.45 | 0.51 | 0.60 | 0.64 | 0.68 | **0.80** | **0.88** |
| 9 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 11 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 13 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.67 | 0.71 | 0.76 | 0.79 | **0.83** | **0.85** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 15 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.93** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.11 | 0.26 | 0.40 | 0.52 | 0.62 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.34 | 0.77 | **0.94** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 233: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.61 |
| 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.30 | 0.32 | 0.34 | 0.37 | 0.39 | 0.40 | 0.45 | 0.51 | 0.60 | 0.64 | 0.68 | **0.80** | **0.88** |
| 9 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 11 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 13 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.67 | 0.71 | 0.76 | 0.79 | **0.83** | **0.85** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 15 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.93** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.11 | 0.26 | 0.40 | 0.52 | 0.62 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.34 | 0.77 | **0.94** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 234: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.37 | 0.40 | 0.51 | 0.60 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.32 | 0.36 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.77 | **0.80** | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.74 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 235: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.37 | 0.40 | 0.51 | 0.60 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.32 | 0.36 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.77 | **0.80** | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.74 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 236: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.34 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.58 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 11 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.75 | 0.79 | **0.81** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 15 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 237: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.34 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.58 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 11 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.75 | 0.79 | **0.81** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 15 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 238: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.34 | 0.37 | 0.45 | 0.49 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.37 | 0.40 | 0.44 | 0.47 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.61 | 0.64 | 0.66 | 0.73 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.38 | 0.44 | 0.51 | 0.56 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 239: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.34 | 0.37 | 0.45 | 0.49 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.37 | 0.40 | 0.44 | 0.47 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.61 | 0.64 | 0.66 | 0.73 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.38 | 0.44 | 0.51 | 0.56 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 240: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.34 | 0.37 | 0.40 | 0.51 | 0.60 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.24 | 0.59 | **0.80** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 241: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.34 | 0.37 | 0.40 | 0.51 | 0.60 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.24 | 0.59 | **0.80** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 242: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.34 | 0.44 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.36 | 0.40 | 0.45 | 0.54 | 0.58 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.48 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.77 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 243: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.34 | 0.44 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.36 | 0.40 | 0.45 | 0.54 | 0.58 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.48 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.77 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 244: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.90** | **0.95** |
| 11 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 15 | 0.09 | 0.18 | 0.27 | 0.36 | 0.45 | 0.52 | 0.59 | 0.65 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.34 | 0.45 | 0.54 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 245: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.90** | **0.95** |
| 11 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 15 | 0.09 | 0.18 | 0.27 | 0.36 | 0.45 | 0.52 | 0.59 | 0.65 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.34 | 0.45 | 0.54 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 246: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.34 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 247: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.34 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 248: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.26 | 0.29 | 0.31 | 0.39 | 0.47 |
| 7 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.46 | 0.52 | 0.57 | 0.67 | 0.71 | 0.75 | **0.86** | **0.92** |
| 11 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.62 | 0.69 | 0.74 | **0.83** | **0.87** | **0.89** | **0.96** | **0.99** |
| 13 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 15 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.81** | **0.83** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 17 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.64 | 0.70 | 0.75 | **0.80** | **0.83** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.24 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.19 | 0.47 | 0.68 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 249: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.26 | 0.29 | 0.31 | 0.39 | 0.47 |
| 7 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.46 | 0.52 | 0.57 | 0.67 | 0.71 | 0.75 | **0.86** | **0.92** |
| 11 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.62 | 0.69 | 0.74 | **0.83** | **0.87** | **0.89** | **0.96** | **0.99** |
| 13 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 15 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.81** | **0.83** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 17 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.64 | 0.70 | 0.75 | **0.80** | **0.83** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.24 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.19 | 0.47 | 0.68 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 250: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.22 | 0.27 |
| 7 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.40 | 0.43 | 0.46 | 0.57 | 0.67 |
| 11 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.62 | 0.75 | **0.83** |
| 13 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 15 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 17 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.42 | 0.46 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.68 | 0.70 | 0.76 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 19 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** |
| 21 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.64 | 0.68 | 0.73 | 0.77 | **0.80** | **0.83** | **0.85** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 23 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.92** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.19 | 0.46 | 0.66 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 251: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.22 | 0.27 |
| 7 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.40 | 0.43 | 0.46 | 0.57 | 0.67 |
| 11 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.62 | 0.75 | **0.83** |
| 13 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 15 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 17 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.42 | 0.46 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.68 | 0.70 | 0.76 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 19 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** |
| 21 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.64 | 0.68 | 0.73 | 0.77 | **0.80** | **0.83** | **0.85** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 23 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.92** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.19 | 0.46 | 0.66 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 252: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 5 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 7 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.38 | 0.41 | 0.44 | 0.55 | 0.64 |
| 9 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 11 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.90** | **0.96** |
| 13 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 15 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 17 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.64 | 0.69 | 0.74 | 0.77 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.19 | 0.29 | 0.39 | 0.47 | 0.55 | 0.62 | 0.69 | 0.74 | 0.79 | **0.82** | **0.86** | **0.88** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.23 | 0.34 | 0.45 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.16 | 0.39 | 0.58 | 0.72 | **0.82** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 253: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 5 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 7 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.38 | 0.41 | 0.44 | 0.55 | 0.64 |
| 9 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 11 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.90** | **0.96** |
| 13 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 15 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 17 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.64 | 0.69 | 0.74 | 0.77 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.19 | 0.29 | 0.39 | 0.47 | 0.55 | 0.62 | 0.69 | 0.74 | 0.79 | **0.82** | **0.86** | **0.88** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.23 | 0.34 | 0.45 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.16 | 0.39 | 0.58 | 0.72 | **0.82** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 254: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 9 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 11 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 13 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 15 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 17 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 21 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 23 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.20 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.75 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 255: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 9 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 11 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 13 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 15 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 17 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 21 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 23 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.20 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.75 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 256: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| $g = h$ | 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| | 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.22 | 0.27 |
| | 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.60 |
| | 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.30 | 0.32 | 0.34 | 0.37 | 0.39 | 0.40 | 0.45 | 0.50 | 0.60 | 0.64 | 0.67 | **0.80** | **0.88** |
| | 9 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.42 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| | 11 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| | 13 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.66 | 0.71 | 0.76 | 0.79 | **0.82** | **0.85** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| | 15 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.79 | **0.83** | **0.86** | **0.89** | **0.92** | **0.93** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 17 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 19 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 21 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 23 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 25 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 27 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 29 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 30 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 35 | 0.34 | 0.77 | **0.94** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 40 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 50 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 55 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 60 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 80 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 100 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 257: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| $g = h$ | 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| | 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.22 | 0.27 |
| | 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.60 |
| | 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.30 | 0.32 | 0.34 | 0.37 | 0.39 | 0.40 | 0.45 | 0.50 | 0.60 | 0.64 | 0.67 | **0.80** | **0.88** |
| | 9 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.42 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| | 11 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| | 13 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.66 | 0.71 | 0.76 | 0.79 | **0.82** | **0.85** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| | 15 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.79 | **0.83** | **0.86** | **0.89** | **0.92** | **0.93** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 17 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 19 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 21 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 23 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 25 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 27 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 29 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 30 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 35 | 0.34 | 0.77 | **0.94** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 40 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 50 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 55 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 60 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 80 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 100 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 258: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| $g = h$ | 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| | 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| | 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| | 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.37 | 0.40 | 0.51 | 0.60 |
| | 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| | 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| | 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.32 | 0.36 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| | 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| | 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | **0.80** | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| | 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| | 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.74 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 27 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 40 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 259: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| $g = h$ | 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| | 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| | 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| | 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.37 | 0.40 | 0.51 | 0.60 |
| | 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| | 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| | 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.32 | 0.36 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| | 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| | 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | **0.80** | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| | 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| | 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.74 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 27 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 40 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 260: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.34 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.91** | **0.96** |
| 11 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.83** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 15 | 0.09 | 0.18 | 0.28 | 0.36 | 0.45 | 0.52 | 0.59 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 261: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.34 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.91** | **0.96** |
| 11 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.83** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 15 | 0.09 | 0.18 | 0.28 | 0.36 | 0.45 | 0.52 | 0.59 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 262: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.34 | 0.37 | 0.45 | 0.49 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.47 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.38 | 0.44 | 0.51 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 263: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.34 | 0.37 | 0.45 | 0.49 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.47 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.38 | 0.44 | 0.51 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 264: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 9 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 11 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.73 |
| 13 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 15 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 17 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 21 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 23 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.65 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.75 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 265: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 9 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 11 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.73 |
| 13 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 15 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 17 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 21 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 23 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.65 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.75 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 266: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.09 | 0.11 | 0.13 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 9 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 13 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 15 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 17 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 19 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.46 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 21 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 23 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.55 | 0.62 | 0.68 | 0.77 | **0.81** | **0.84** | **0.93** | **0.97** |
| 25 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.63 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 27 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.65 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 29 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.75 | **0.82** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 30 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 35 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.30 | 0.46 | 0.60 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 267: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.09 | 0.11 | 0.13 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 9 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 13 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 15 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 17 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 19 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.46 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 21 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 23 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.55 | 0.62 | 0.68 | 0.77 | **0.81** | **0.84** | **0.93** | **0.97** |
| 25 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.63 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 27 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.65 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 29 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.75 | **0.82** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 30 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 35 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.30 | 0.46 | 0.60 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 268: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.34 | 0.37 | 0.40 | 0.51 | 0.60 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.24 | 0.59 | **0.80** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 269: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.34 | 0.37 | 0.40 | 0.51 | 0.60 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.24 | 0.59 | **0.80** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 270: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.34 | 0.44 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.36 | 0.40 | 0.45 | 0.54 | 0.58 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.48 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.77 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 271: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.34 | 0.44 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.36 | 0.40 | 0.45 | 0.54 | 0.58 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.48 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.77 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 272: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.34 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 273: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.34 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 274: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 7 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.25 | 0.30 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 11 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 13 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.50 | 0.54 | 0.66 | 0.75 |
| 15 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 17 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 19 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.29 | 0.32 | 0.36 | 0.39 | 0.43 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.69 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 21 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 23 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 25 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 30 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 35 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 275: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 7 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.25 | 0.30 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 11 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 13 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.50 | 0.54 | 0.66 | 0.75 |
| 15 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 17 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 19 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.29 | 0.32 | 0.36 | 0.39 | 0.43 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.69 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 21 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 23 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 25 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 30 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 35 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 276: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.34 | 0.37 | 0.40 | 0.51 | 0.60 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.24 | 0.59 | **0.80** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 277: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.34 | 0.37 | 0.40 | 0.51 | 0.60 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.24 | 0.59 | **0.80** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 278: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.34 | 0.44 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.36 | 0.40 | 0.45 | 0.54 | 0.58 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.48 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.77 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 279: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.34 | 0.44 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.36 | 0.40 | 0.45 | 0.54 | 0.58 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.48 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.77 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 280: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.90** | **0.95** |
| 11 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 15 | 0.09 | 0.18 | 0.27 | 0.36 | 0.45 | 0.52 | 0.59 | 0.65 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.34 | 0.45 | 0.54 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 281: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.90** | **0.95** |
| 11 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 15 | 0.09 | 0.18 | 0.27 | 0.36 | 0.45 | 0.52 | 0.59 | 0.65 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.34 | 0.45 | 0.54 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 282: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.34 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 283: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.34 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 284: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.26 | 0.29 | 0.31 | 0.39 | 0.47 |
| 7 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.46 | 0.52 | 0.57 | 0.67 | 0.71 | 0.75 | **0.86** | **0.92** |
| 11 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.62 | 0.69 | 0.74 | **0.83** | **0.87** | **0.89** | **0.96** | **0.99** |
| 13 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 15 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.81** | **0.83** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 17 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.64 | 0.70 | 0.75 | **0.80** | **0.83** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.24 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.19 | 0.47 | 0.68 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 285: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.26 | 0.29 | 0.31 | 0.39 | 0.47 |
| 7 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.46 | 0.52 | 0.57 | 0.67 | 0.71 | 0.75 | **0.86** | **0.92** |
| 11 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.62 | 0.69 | 0.74 | **0.83** | **0.87** | **0.89** | **0.96** | **0.99** |
| 13 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 15 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.81** | **0.83** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 17 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.64 | 0.70 | 0.75 | **0.80** | **0.83** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.24 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.19 | 0.47 | 0.68 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 286: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.22 | 0.27 |
| 7 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.40 | 0.43 | 0.46 | 0.57 | 0.67 |
| 11 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.62 | 0.75 | **0.83** |
| 13 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 15 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 17 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.42 | 0.46 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.68 | 0.70 | 0.76 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 19 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** |
| 21 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.64 | 0.68 | 0.73 | 0.77 | **0.80** | **0.83** | **0.85** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 23 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.92** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.19 | 0.46 | 0.66 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 287: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.22 | 0.27 |
| 7 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.40 | 0.43 | 0.46 | 0.57 | 0.67 |
| 11 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.62 | 0.75 | **0.83** |
| 13 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 15 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 17 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.42 | 0.46 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.68 | 0.70 | 0.76 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 19 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** |
| 21 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.64 | 0.68 | 0.73 | 0.77 | **0.80** | **0.83** | **0.85** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 23 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.92** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.19 | 0.46 | 0.66 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 288: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 9 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 11 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.73 |
| 13 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.29 | 0.31 | 0.33 | 0.35 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 15 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 17 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.71 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 21 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 23 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.65 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 25 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.84** | **0.88** | **0.90** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.13 | 0.30 | 0.45 | 0.59 | 0.69 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 289: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 9 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 11 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.73 |
| 13 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.29 | 0.31 | 0.33 | 0.35 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 15 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 17 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.71 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 21 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 23 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.65 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 25 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.84** | **0.88** | **0.90** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.13 | 0.30 | 0.45 | 0.59 | 0.69 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 290: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.09 | 0.11 | 0.13 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 9 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 13 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 15 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 17 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 19 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.46 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 21 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 23 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.55 | 0.62 | 0.68 | 0.77 | **0.81** | **0.84** | **0.93** | **0.97** |
| 25 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.63 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 27 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.65 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 29 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.67 | 0.71 | 0.74 | 0.75 | **0.81** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 30 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 35 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.30 | 0.46 | 0.60 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.26 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 291: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.09 | 0.11 | 0.13 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 9 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 13 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 15 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 17 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 19 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.46 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 21 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 23 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.55 | 0.62 | 0.68 | 0.77 | **0.81** | **0.84** | **0.93** | **0.97** |
| 25 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.63 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 27 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.65 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 29 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.67 | 0.71 | 0.74 | 0.75 | **0.81** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 30 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 35 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.30 | 0.46 | 0.60 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.26 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 292: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.34 | 0.37 | 0.40 | 0.50 | 0.60 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.53 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.53 | 0.57 | 0.60 | 0.61 | 0.68 | 0.73 | **0.82** | **0.86** | **0.89** | **0.96** | **0.98** |
| 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.49 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.73 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.31 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 293: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.34 | 0.37 | 0.40 | 0.50 | 0.60 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.53 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.53 | 0.57 | 0.60 | 0.61 | 0.68 | 0.73 | **0.82** | **0.86** | **0.89** | **0.96** | **0.98** |
| 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.49 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.73 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.31 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 294: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.36 | 0.40 | 0.45 | 0.54 | 0.58 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.76 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 295: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.36 | 0.40 | 0.45 | 0.54 | 0.58 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.76 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 296: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.34 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.73 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.46 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.66 | 0.74 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.73 | **0.82** | **0.87** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.41 | 0.61 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 297: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.34 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.73 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.46 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.66 | 0.74 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.73 | **0.82** | **0.87** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.41 | 0.61 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 298: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 7 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.20 | 0.25 | 0.30 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 11 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 13 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.50 | 0.54 | 0.66 | 0.75 |
| 15 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.29 | 0.31 | 0.33 | 0.35 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 17 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.54 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 19 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.29 | 0.32 | 0.36 | 0.39 | 0.43 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.69 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 21 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 23 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 25 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 30 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 35 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 299: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 7 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.20 | 0.25 | 0.30 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 11 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 13 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.50 | 0.54 | 0.66 | 0.75 |
| 15 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.29 | 0.31 | 0.33 | 0.35 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 17 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.54 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 19 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.29 | 0.32 | 0.36 | 0.39 | 0.43 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.69 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 21 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 23 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 25 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 30 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 35 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 300: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 9 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 11 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.73 |
| 13 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 15 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 17 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 21 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 23 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.65 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.75 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 301: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 9 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 11 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.73 |
| 13 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 15 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 17 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 21 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 23 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.65 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.75 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 302: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.09 | 0.11 | 0.13 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 9 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 13 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 15 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 17 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 19 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.46 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 21 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 23 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.55 | 0.62 | 0.68 | 0.77 | **0.81** | **0.84** | **0.93** | **0.97** |
| 25 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.63 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 27 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.65 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 29 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.75 | **0.82** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 30 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 35 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.30 | 0.46 | 0.60 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 303: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.09 | 0.11 | 0.13 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 9 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 13 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 15 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 17 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 19 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.46 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 21 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 23 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.55 | 0.62 | 0.68 | 0.77 | **0.81** | **0.84** | **0.93** | **0.97** |
| 25 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.63 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 27 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.65 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 29 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.75 | **0.82** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 30 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 35 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.30 | 0.46 | 0.60 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 304: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| $g = h$ | 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| | 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| | 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| | 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.34 | 0.37 | 0.40 | 0.51 | 0.60 |
| | 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| | 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| | 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| | 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| | 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| | 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| | 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 27 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 40 | 0.24 | 0.59 | **0.80** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 305: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| $g = h$ | 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| | 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| | 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| | 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.34 | 0.37 | 0.40 | 0.51 | 0.60 |
| | 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| | 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| | 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| | 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| | 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| | 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| | 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 27 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 40 | 0.24 | 0.59 | **0.80** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 306: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.34 | 0.44 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.36 | 0.40 | 0.45 | 0.54 | 0.58 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.48 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.77 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 307: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.34 | 0.44 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.36 | 0.40 | 0.45 | 0.54 | 0.58 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.48 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.77 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 308: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.34 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 309: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.34 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 310: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 7 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.25 | 0.30 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 11 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 13 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.50 | 0.54 | 0.66 | 0.75 |
| 15 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 17 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 19 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.29 | 0.32 | 0.36 | 0.39 | 0.43 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.69 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 21 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 23 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 25 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 30 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 35 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 311: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 7 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.25 | 0.30 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 11 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 13 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.50 | 0.54 | 0.66 | 0.75 |
| 15 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 17 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 19 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.29 | 0.32 | 0.36 | 0.39 | 0.43 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.69 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 21 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 23 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 25 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 30 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 35 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 312: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.34 | 0.37 | 0.40 | 0.51 | 0.60 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.24 | 0.59 | **0.80** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 313: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.34 | 0.37 | 0.40 | 0.51 | 0.60 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.24 | 0.59 | **0.80** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 314: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.34 | 0.44 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.36 | 0.40 | 0.45 | 0.54 | 0.58 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.48 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.77 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 315: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.34 | 0.44 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.36 | 0.40 | 0.45 | 0.54 | 0.58 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.48 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.77 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 316: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.90** | **0.95** |
| 11 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 15 | 0.09 | 0.18 | 0.27 | 0.36 | 0.45 | 0.52 | 0.59 | 0.65 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.34 | 0.45 | 0.54 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 317: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.32 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.90** | **0.95** |
| 11 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 15 | 0.09 | 0.18 | 0.27 | 0.36 | 0.45 | 0.52 | 0.59 | 0.65 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.34 | 0.45 | 0.54 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 318: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.34 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 319: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.34 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 320: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.26 | 0.29 | 0.31 | 0.39 | 0.47 |
| 7 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.46 | 0.52 | 0.57 | 0.67 | 0.71 | 0.75 | **0.86** | **0.92** |
| 11 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.62 | 0.69 | 0.74 | **0.83** | **0.87** | **0.89** | **0.96** | **0.99** |
| 13 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 15 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.81** | **0.83** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 17 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.64 | 0.70 | 0.75 | **0.80** | **0.83** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.24 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.19 | 0.47 | 0.68 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 321: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.26 | 0.29 | 0.31 | 0.39 | 0.47 |
| 7 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.46 | 0.52 | 0.57 | 0.67 | 0.71 | 0.75 | **0.86** | **0.92** |
| 11 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.62 | 0.69 | 0.74 | **0.83** | **0.87** | **0.89** | **0.96** | **0.99** |
| 13 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 15 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.81** | **0.83** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 17 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.64 | 0.70 | 0.75 | **0.80** | **0.83** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.24 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.19 | 0.47 | 0.68 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 322: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.22 | 0.27 |
| 7 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.40 | 0.43 | 0.46 | 0.57 | 0.67 |
| 11 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.62 | 0.75 | **0.83** |
| 13 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 15 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 17 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.42 | 0.46 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.68 | 0.70 | 0.76 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 19 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** |
| 21 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.64 | 0.68 | 0.73 | 0.77 | **0.80** | **0.83** | **0.85** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 23 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.92** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.19 | 0.46 | 0.66 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 323: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.22 | 0.27 |
| 7 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.39 | 0.46 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.40 | 0.43 | 0.46 | 0.57 | 0.67 |
| 11 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.62 | 0.75 | **0.83** |
| 13 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 15 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 17 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.42 | 0.46 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.68 | 0.70 | 0.76 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 19 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** |
| 21 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.64 | 0.68 | 0.73 | 0.77 | **0.80** | **0.83** | **0.85** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 23 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.92** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.15 | 0.37 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.19 | 0.46 | 0.66 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 324: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 5 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 7 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.38 | 0.41 | 0.44 | 0.55 | 0.64 |
| 9 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 11 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.90** | **0.96** |
| 13 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 15 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 17 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.64 | 0.69 | 0.74 | 0.77 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.19 | 0.29 | 0.39 | 0.47 | 0.55 | 0.62 | 0.69 | 0.74 | 0.79 | **0.82** | **0.86** | **0.88** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.23 | 0.34 | 0.45 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.16 | 0.39 | 0.58 | 0.72 | **0.82** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 325: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 9 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 11 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.73 |
| 13 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.29 | 0.31 | 0.33 | 0.35 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 15 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 17 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.71 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 21 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 23 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.65 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 25 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.84** | **0.88** | **0.90** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.13 | 0.30 | 0.45 | 0.59 | 0.69 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 326: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.31 | 0.38 |
| 9 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 11 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.74 |
| 13 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.33 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 15 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.74 | 0.78 | **0.88** | **0.94** |
| 17 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 19 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 21 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 23 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 25 | 0.09 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 27 | 0.09 | 0.20 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.75 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.10 | 0.22 | 0.33 | 0.44 | 0.53 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.84** | **0.89** | **0.92** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 327: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.09 | 0.11 | 0.13 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 9 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 13 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 15 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 17 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 19 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.46 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 21 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 23 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.55 | 0.62 | 0.68 | 0.77 | **0.81** | **0.84** | **0.93** | **0.97** |
| 25 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.63 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 27 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.65 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.92** | **0.94** | **0.98** | **0.99** |
| 29 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.67 | 0.71 | 0.74 | 0.75 | **0.81** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 30 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 35 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.30 | 0.46 | 0.60 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.26 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 328: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| $g = h$ | 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| | 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.22 | 0.27 |
| | 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.51 | 0.60 |
| | 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.30 | 0.32 | 0.34 | 0.37 | 0.39 | 0.40 | 0.45 | 0.50 | 0.60 | 0.64 | 0.67 | **0.80** | **0.88** |
| | 9 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.42 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| | 11 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| | 13 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.66 | 0.71 | 0.76 | 0.79 | **0.82** | **0.85** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| | 15 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.79 | **0.83** | **0.86** | **0.89** | **0.92** | **0.93** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 17 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 19 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 21 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 23 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 25 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 27 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 29 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 30 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 35 | 0.34 | 0.77 | **0.94** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 40 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 50 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 55 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 60 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 80 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 100 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 329: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| $g = h$ | 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| | 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| | 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| | 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.34 | 0.37 | 0.40 | 0.50 | 0.60 |
| | 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| | 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.53 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| | 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.53 | 0.57 | 0.60 | 0.61 | 0.68 | 0.73 | **0.82** | **0.86** | **0.89** | **0.96** | **0.98** |
| | 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.49 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.73 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| | 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| | 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| | 21 | 0.10 | 0.21 | 0.31 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 27 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 30 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 40 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 60 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| | 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 330: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 7 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.37 | 0.40 | 0.51 | 0.60 |
| 9 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 13 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.32 | 0.36 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 15 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 17 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.76 | **0.80** | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 19 | 0.09 | 0.18 | 0.27 | 0.35 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 21 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.74 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 331: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.36 | 0.40 | 0.45 | 0.54 | 0.58 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.76 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.66 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 332: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.34 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.50 | 0.52 | 0.58 | 0.64 | 0.73 | 0.77 | **0.81** | **0.91** | **0.96** |
| 11 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.83** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 15 | 0.09 | 0.18 | 0.28 | 0.36 | 0.45 | 0.52 | 0.59 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 333: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.34 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.33 | 0.37 | 0.45 | 0.48 | 0.52 | 0.64 | 0.73 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.46 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.66 | 0.74 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.73 | **0.82** | **0.87** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.41 | 0.61 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 334: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.52 |
| 9 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.29 | 0.34 | 0.37 | 0.45 | 0.49 | 0.52 | 0.64 | 0.74 |
| 11 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 13 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.47 | 0.49 | 0.52 | 0.54 | 0.60 | 0.66 | 0.75 | 0.79 | **0.83** | **0.92** | **0.96** |
| 15 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 17 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 19 | 0.08 | 0.16 | 0.23 | 0.30 | 0.38 | 0.44 | 0.51 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 335: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 7 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.20 | 0.25 | 0.30 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 11 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 13 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.50 | 0.54 | 0.66 | 0.75 |
| 15 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.29 | 0.31 | 0.33 | 0.35 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 17 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.54 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 19 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.29 | 0.32 | 0.36 | 0.39 | 0.43 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.69 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 21 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 23 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 25 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 30 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 35 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 336: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.09 | 0.11 | 0.13 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 9 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 13 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 15 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 17 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.55 | 0.59 | 0.72 | **0.81** |
| 19 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.46 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 21 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 23 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.55 | 0.62 | 0.68 | 0.77 | **0.81** | **0.84** | **0.93** | **0.97** |
| 25 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 27 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.65 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.91** | **0.94** | **0.98** | **0.99** |
| 29 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.67 | 0.71 | 0.74 | 0.75 | **0.81** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 30 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 35 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.30 | 0.46 | 0.60 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.26 | 0.63 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 337: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.09 | 0.11 | 0.13 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 9 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 13 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 15 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.27 | 0.28 | 0.31 | 0.35 | 0.42 | 0.46 | 0.49 | 0.61 | 0.70 |
| 17 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.55 | 0.59 | 0.72 | **0.81** |
| 19 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.46 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 21 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 23 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.54 | 0.55 | 0.62 | 0.68 | 0.77 | **0.81** | **0.84** | **0.93** | **0.97** |
| 25 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 27 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.65 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.91** | **0.94** | **0.98** | **0.99** |
| 29 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.67 | 0.71 | 0.74 | 0.75 | **0.81** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 30 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.59 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 35 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 40 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.13 | 0.30 | 0.46 | 0.60 | 0.70 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.26 | 0.63 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 338: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 5 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 7 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 9 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 11 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 13 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.20 | 0.22 | 0.28 | 0.33 |
| 15 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 17 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.52 |
| 19 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 21 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.35 | 0.42 | 0.45 | 0.48 | 0.60 | 0.70 |
| 23 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.36 | 0.40 | 0.48 | 0.52 | 0.55 | 0.68 | 0.77 |
| 25 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 27 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.36 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 29 | 0.05 | 0.09 | 0.12 | 0.15 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.37 | 0.40 | 0.43 | 0.45 | 0.46 | 0.52 | 0.58 | 0.68 | 0.72 | 0.75 | **0.86** | **0.93** |
| 30 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.75 | 0.78 | **0.88** | **0.94** |
| 35 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.28 | 0.32 | 0.36 | 0.40 | 0.43 | 0.47 | 0.51 | 0.54 | 0.57 | 0.60 | 0.62 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 40 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.49 | 0.54 | 0.58 | 0.62 | 0.65 | 0.69 | 0.72 | 0.73 | **0.80** | **0.85** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 50 | 0.09 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 55 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.11 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 339: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 5 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 7 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 9 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 11 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 13 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.20 | 0.22 | 0.28 | 0.33 |
| 15 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 17 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.52 |
| 19 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 21 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.35 | 0.42 | 0.45 | 0.48 | 0.60 | 0.70 |
| 23 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.36 | 0.40 | 0.48 | 0.52 | 0.55 | 0.68 | 0.77 |
| 25 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 27 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.36 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 29 | 0.05 | 0.09 | 0.12 | 0.15 | 0.17 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.37 | 0.40 | 0.43 | 0.45 | 0.46 | 0.52 | 0.58 | 0.68 | 0.72 | 0.75 | **0.86** | **0.93** |
| 30 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.42 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.70 | 0.75 | 0.78 | **0.88** | **0.94** |
| 35 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.28 | 0.32 | 0.36 | 0.40 | 0.43 | 0.47 | 0.51 | 0.54 | 0.57 | 0.60 | 0.62 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 40 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.49 | 0.54 | 0.58 | 0.62 | 0.65 | 0.69 | 0.72 | 0.73 | **0.80** | **0.85** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 50 | 0.09 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 55 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.11 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 340: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.34 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.45 | 0.54 | 0.57 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.76 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.37 | 0.42 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.93** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 341: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 7 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.13 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.34 |
| 9 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.52 |
| 11 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 13 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.45 | 0.54 | 0.57 | 0.61 | 0.74 | **0.83** |
| 15 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 17 | 0.06 | 0.10 | 0.13 | 0.17 | 0.21 | 0.24 | 0.28 | 0.31 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.55 | 0.61 | 0.67 | 0.76 | **0.80** | **0.84** | **0.92** | **0.97** |
| 19 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.37 | 0.42 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 21 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 23 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 25 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 27 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 29 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.74 | 0.79 | **0.83** | **0.87** | **0.89** | **0.92** | **0.93** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 342: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 9 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.25 | 0.29 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.18 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 13 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.25 | 0.31 | 0.33 | 0.36 | 0.45 | 0.54 |
| 15 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 17 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.31 | 0.35 | 0.40 | 0.48 | 0.51 | 0.55 | 0.67 | 0.77 |
| 19 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.37 | 0.38 | 0.43 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 21 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 23 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.51 | 0.57 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 25 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.33 | 0.37 | 0.41 | 0.44 | 0.47 | 0.51 | 0.54 | 0.57 | 0.58 | 0.65 | 0.70 | **0.80** | **0.83** | **0.86** | **0.94** | **0.98** |
| 27 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 29 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.63 | 0.66 | 0.69 | 0.71 | 0.77 | **0.83** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 30 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 35 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.72 | 0.75 | 0.79 | **0.82** | **0.84** | **0.86** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 40 | 0.09 | 0.19 | 0.29 | 0.39 | 0.47 | 0.55 | 0.62 | 0.69 | 0.74 | 0.79 | **0.82** | **0.86** | **0.88** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 343: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 9 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.25 | 0.29 |
| 11 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.18 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 13 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.25 | 0.31 | 0.33 | 0.36 | 0.45 | 0.54 |
| 15 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 17 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.31 | 0.35 | 0.40 | 0.48 | 0.51 | 0.55 | 0.67 | 0.77 |
| 19 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.37 | 0.38 | 0.43 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 21 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 23 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.51 | 0.57 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 25 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.33 | 0.37 | 0.41 | 0.44 | 0.47 | 0.51 | 0.54 | 0.57 | 0.58 | 0.65 | 0.70 | **0.80** | **0.83** | **0.86** | **0.94** | **0.98** |
| 27 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 29 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.63 | 0.66 | 0.69 | 0.71 | 0.77 | **0.83** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 30 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 35 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.72 | 0.75 | 0.79 | **0.82** | **0.84** | **0.86** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 40 | 0.09 | 0.19 | 0.29 | 0.39 | 0.47 | 0.55 | 0.62 | 0.69 | 0.74 | 0.79 | **0.82** | **0.86** | **0.88** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 344: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 7 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.20 | 0.25 | 0.30 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 11 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 13 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.30 | 0.30 | 0.35 | 0.39 | 0.46 | 0.50 | 0.54 | 0.66 | 0.75 |
| 15 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.29 | 0.31 | 0.33 | 0.35 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 17 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.53 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 19 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.29 | 0.32 | 0.36 | 0.39 | 0.43 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.69 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 21 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 23 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 25 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.09 | 0.17 | 0.26 | 0.35 | 0.42 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 30 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 35 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.13 | 0.29 | 0.44 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 345: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 7 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.20 | 0.25 | 0.30 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 11 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 13 | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.30 | 0.30 | 0.35 | 0.39 | 0.46 | 0.50 | 0.54 | 0.66 | 0.75 |
| 15 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.26 | 0.29 | 0.31 | 0.33 | 0.35 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 17 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.53 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 19 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.29 | 0.32 | 0.36 | 0.39 | 0.43 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.69 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 21 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 23 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 25 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 27 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 29 | 0.09 | 0.17 | 0.26 | 0.35 | 0.42 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 30 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 35 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.13 | 0.29 | 0.44 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 346: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 9 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 11 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.29 | 0.35 |
| 13 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.26 | 0.28 | 0.31 | 0.39 | 0.47 |
| 15 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 17 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.30 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 19 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.31 | 0.32 | 0.37 | 0.41 | 0.49 | 0.53 | 0.56 | 0.69 | 0.78 |
| 21 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.86** |
| 23 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 25 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.49 | 0.51 | 0.57 | 0.63 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 27 | 0.06 | 0.10 | 0.14 | 0.18 | 0.21 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.55 | 0.57 | 0.63 | 0.69 | 0.79 | **0.82** | **0.85** | **0.94** | **0.97** |
| 29 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.33 | 0.37 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.61 | 0.63 | 0.70 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 30 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.61 | 0.64 | 0.66 | 0.73 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 35 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.59 | 0.64 | 0.68 | 0.71 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** |
| 40 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.93** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 50 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.12 | 0.28 | 0.43 | 0.55 | 0.66 | 0.75 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 347: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 9 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 11 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.29 | 0.35 |
| 13 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.26 | 0.28 | 0.31 | 0.39 | 0.47 |
| 15 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 17 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.30 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 19 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.31 | 0.32 | 0.37 | 0.41 | 0.49 | 0.53 | 0.56 | 0.69 | 0.78 |
| 21 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.86** |
| 23 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 25 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.25 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.49 | 0.51 | 0.57 | 0.63 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 27 | 0.06 | 0.10 | 0.14 | 0.18 | 0.21 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.55 | 0.57 | 0.63 | 0.69 | 0.79 | **0.82** | **0.85** | **0.94** | **0.97** |
| 29 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.33 | 0.37 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.61 | 0.63 | 0.70 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 30 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.61 | 0.64 | 0.66 | 0.73 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 35 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.59 | 0.64 | 0.68 | 0.71 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** |
| 40 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.93** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 50 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.12 | 0.28 | 0.43 | 0.55 | 0.66 | 0.75 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 348: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 7 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 349: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 7 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 350: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.34 | 0.43 | 0.51 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 9 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.75 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 351: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.34 | 0.43 | 0.51 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 9 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.75 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 352: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 5 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 353: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 5 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 354: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.28 | 0.32 | 0.36 | 0.43 | 0.47 | 0.50 | 0.62 | 0.72 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.97** | **0.99** |
| 7 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 355: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.28 | 0.32 | 0.36 | 0.43 | 0.47 | 0.50 | 0.62 | 0.72 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.97** | **0.99** |
| 7 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 356: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.29 | 0.32 | 0.35 | 0.37 | 0.39 | 0.42 | 0.43 | 0.49 | 0.54 | 0.63 | 0.68 | 0.71 | **0.83** | **0.90** |
| 5 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.81** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 357: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.29 | 0.32 | 0.35 | 0.37 | 0.39 | 0.42 | 0.43 | 0.49 | 0.54 | 0.63 | 0.68 | 0.71 | **0.83** | **0.90** |
| 5 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.81** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 358: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.29 | 0.32 | 0.38 | 0.41 | 0.45 | 0.56 | 0.65 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.44 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.73 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 359: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.29 | 0.32 | 0.38 | 0.41 | 0.45 | 0.56 | 0.65 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.44 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.73 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 360: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.14 | 0.16 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.54 | 0.58 | 0.62 | 0.74 | **0.83** |
| 5 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.68 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 7 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.54 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 361: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.54 |
| 5 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.38 | 0.41 | 0.43 | 0.46 | 0.47 | 0.53 | 0.59 | 0.68 | 0.73 | 0.76 | **0.87** | **0.93** |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.75 | **0.82** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 9 | 0.09 | 0.19 | 0.28 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.87** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.26 | 0.40 | 0.52 | 0.62 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.43 | 0.64 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 362: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.24 | 0.26 | 0.32 | 0.34 | 0.37 | 0.47 | 0.55 |
| 5 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.69 | 0.74 | 0.77 | **0.88** | **0.94** |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 9 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 363: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.32 |
| 5 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.35 | 0.42 | 0.45 | 0.48 | 0.60 | 0.69 |
| 7 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.53 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 9 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 11 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 13 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.18 | 0.44 | 0.64 | 0.78 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 364: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.36 | 0.39 | 0.42 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.68 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 5 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.21 | 0.52 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.39 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 365: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.36 | 0.41 | 0.49 | 0.52 | 0.56 | 0.68 | 0.78 |
| 5 | 0.07 | 0.12 | 0.17 | 0.22 | 0.28 | 0.33 | 0.37 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **1.00** |
| 7 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.75 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 366: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | **0.80** |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.48 | 0.52 | 0.57 | 0.60 | 0.64 | 0.67 | 0.71 | 0.72 | 0.78 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 7 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.29 | 0.67 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 367: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.50 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.44 | 0.49 | 0.55 | 0.64 | 0.68 | 0.72 | **0.84** | **0.91** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.94** | **0.98** | **1.00** |
| 9 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.40 | 0.60 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.37 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 368: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.71 | 0.75 | 0.78 | **0.89** | **0.94** |
| 5 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 369: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.35 | 0.43 | 0.46 | 0.49 | 0.61 | 0.71 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.37 | 0.41 | 0.44 | 0.48 | 0.52 | 0.55 | 0.58 | 0.61 | 0.63 | 0.70 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 7 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** |
| 9 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 370: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.36 | 0.44 | 0.47 | 0.51 | 0.63 | 0.72 |
| 5 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.64 | 0.71 | 0.77 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 7 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.51 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 371: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.36 | 0.44 |
| 5 | 0.05 | 0.08 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.64 | 0.77 | **0.85** |
| 7 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.96** | **0.99** |
| 9 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.65 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.35 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.17 | 0.42 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.72 | **0.86** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.41 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 372: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.16 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.37 | 0.41 | 0.46 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 5 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.43 | 0.48 | 0.53 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** |
| 7 | 0.10 | 0.22 | 0.34 | 0.44 | 0.54 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.33 | 0.51 | 0.65 | 0.76 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.39 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 373: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.16 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.37 | 0.41 | 0.46 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 5 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.43 | 0.48 | 0.53 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** |
| 7 | 0.10 | 0.22 | 0.34 | 0.44 | 0.54 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.33 | 0.51 | 0.65 | 0.76 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.39 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 374: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.24 | 0.26 | 0.32 | 0.34 | 0.37 | 0.47 | 0.56 |
| 5 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.55 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.53 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.47 | 0.55 | 0.62 | 0.69 | 0.74 | 0.79 | **0.82** | **0.86** | **0.88** | **0.91** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 375: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.24 | 0.26 | 0.32 | 0.34 | 0.37 | 0.47 | 0.56 |
| 5 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.55 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.53 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.47 | 0.55 | 0.62 | 0.69 | 0.74 | 0.79 | **0.82** | **0.86** | **0.88** | **0.91** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 376: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.26 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.69 | 0.79 | **0.83** | **0.86** | **0.94** | **0.97** |
| 5 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.22 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 377: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.26 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.69 | 0.79 | **0.83** | **0.86** | **0.94** | **0.97** |
| 5 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.22 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 378: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.38 | 0.43 | 0.51 | 0.55 | 0.58 | 0.71 | **0.80** |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 7 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.43 | 0.63 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.23 | 0.56 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 379: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.38 | 0.43 | 0.51 | 0.55 | 0.58 | 0.71 | **0.80** |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 7 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.43 | 0.63 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.23 | 0.56 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 380: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.19 | 0.22 |
| 3 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.50 | 0.56 | 0.62 | 0.72 | 0.76 | 0.79 | **0.89** | **0.95** |
| 5 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.90** | **0.90** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.26 | 0.62 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.34 | 0.77 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 381: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.19 | 0.22 |
| 3 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.50 | 0.56 | 0.62 | 0.72 | 0.76 | 0.79 | **0.89** | **0.95** |
| 5 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.90** | **0.90** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.26 | 0.62 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.34 | 0.77 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 382: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 5 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 7 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 383: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 5 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.72 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 7 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 384: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 7 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 385: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 7 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 386: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.34 | 0.43 | 0.51 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 9 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.75 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 387: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.34 | 0.43 | 0.51 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 9 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.75 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 388: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 5 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 389: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 5 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 390: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.28 | 0.32 | 0.36 | 0.43 | 0.47 | 0.50 | 0.62 | 0.72 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.97** | **0.99** |
| 7 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 391: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.28 | 0.32 | 0.36 | 0.43 | 0.47 | 0.50 | 0.62 | 0.72 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.97** | **0.99** |
| 7 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 392: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.29 | 0.32 | 0.35 | 0.37 | 0.39 | 0.42 | 0.43 | 0.49 | 0.54 | 0.63 | 0.68 | 0.71 | **0.83** | **0.90** |
| 5 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.81** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 393: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.29 | 0.32 | 0.35 | 0.37 | 0.39 | 0.42 | 0.43 | 0.49 | 0.54 | 0.63 | 0.68 | 0.71 | **0.83** | **0.90** |
| 5 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.81** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 394: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.29 | 0.32 | 0.38 | 0.41 | 0.45 | 0.56 | 0.65 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.44 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.73 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 395: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.29 | 0.32 | 0.38 | 0.41 | 0.45 | 0.56 | 0.65 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.44 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.73 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 396: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.14 | 0.16 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.54 | 0.58 | 0.62 | 0.74 | **0.83** |
| 5 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.68 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 7 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.54 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 397: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.14 | 0.16 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.54 | 0.58 | 0.62 | 0.74 | **0.83** |
| 5 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.68 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 7 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.54 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 398: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.24 | 0.26 | 0.32 | 0.34 | 0.37 | 0.47 | 0.55 |
| 5 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.69 | 0.74 | 0.77 | **0.88** | **0.94** |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 9 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 399: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.24 | 0.26 | 0.32 | 0.34 | 0.37 | 0.47 | 0.55 |
| 5 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.69 | 0.74 | 0.77 | **0.88** | **0.94** |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 9 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 400: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.36 | 0.39 | 0.42 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.68 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 5 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.21 | 0.52 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.39 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 401: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.36 | 0.39 | 0.42 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.68 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 5 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.21 | 0.52 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.39 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 402: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | **0.80** |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.48 | 0.52 | 0.57 | 0.60 | 0.64 | 0.67 | 0.71 | 0.72 | 0.78 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 7 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.29 | 0.67 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 403: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | **0.80** |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.48 | 0.52 | 0.57 | 0.60 | 0.64 | 0.67 | 0.71 | 0.72 | 0.78 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 7 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.29 | 0.67 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 404: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.71 | 0.75 | 0.78 | **0.89** | **0.94** |
| 5 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 405: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.71 | 0.75 | 0.78 | **0.89** | **0.94** |
| 5 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 406: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.36 | 0.44 | 0.47 | 0.51 | 0.63 | 0.72 |
| 5 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.64 | 0.71 | 0.77 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 7 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.51 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 407: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.36 | 0.44 | 0.47 | 0.51 | 0.63 | 0.72 |
| 5 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.64 | 0.71 | 0.77 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 7 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.51 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 408: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.37 | 0.46 | 0.55 |
| 5 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.94** |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.42 | 0.47 | 0.52 | 0.56 | 0.61 | 0.65 | 0.68 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 9 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.52 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.31 | 0.72 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 409: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.37 | 0.46 | 0.55 |
| 5 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.94** |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.42 | 0.47 | 0.52 | 0.56 | 0.61 | 0.65 | 0.68 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 9 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.52 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.31 | 0.72 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 410: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.26 | 0.32 |
| 5 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.27 | 0.31 | 0.35 | 0.42 | 0.45 | 0.48 | 0.60 | 0.70 |
| 7 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 9 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 11 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 13 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.47 | 0.61 | 0.71 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.21 | 0.51 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 411: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.26 | 0.32 |
| 5 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.27 | 0.31 | 0.35 | 0.42 | 0.45 | 0.48 | 0.60 | 0.70 |
| 7 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 9 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 11 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 13 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.47 | 0.61 | 0.71 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.21 | 0.51 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 412: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 7 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 413: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 7 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 414: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.34 | 0.43 | 0.51 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 9 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.75 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 415: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.34 | 0.43 | 0.51 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 9 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.75 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 416: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.28 | 0.32 | 0.36 | 0.43 | 0.47 | 0.50 | 0.62 | 0.72 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.97** | **0.99** |
| 7 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 417: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.28 | 0.32 | 0.36 | 0.43 | 0.47 | 0.50 | 0.62 | 0.72 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.97** | **0.99** |
| 7 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 418: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 5 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.86** |
| 7 | 0.06 | 0.11 | 0.16 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 9 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.42 | 0.55 | 0.65 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.18 | 0.43 | 0.63 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 419: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 5 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.86** |
| 7 | 0.06 | 0.11 | 0.16 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 9 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.42 | 0.55 | 0.65 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.18 | 0.43 | 0.63 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 420: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 7 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 421: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 7 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 422: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.34 | 0.43 | 0.51 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 9 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.75 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 423: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.34 | 0.43 | 0.51 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 9 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.75 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 424: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 5 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 425: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 5 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 426: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.28 | 0.32 | 0.36 | 0.43 | 0.47 | 0.50 | 0.62 | 0.72 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.97** | **0.99** |
| 7 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 427: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.28 | 0.32 | 0.36 | 0.43 | 0.47 | 0.50 | 0.62 | 0.72 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.97** | **0.99** |
| 7 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 428: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.29 | 0.32 | 0.35 | 0.37 | 0.39 | 0.42 | 0.43 | 0.49 | 0.54 | 0.63 | 0.68 | 0.71 | **0.83** | **0.90** |
| 5 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.81** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 429: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.29 | 0.32 | 0.35 | 0.37 | 0.39 | 0.42 | 0.43 | 0.49 | 0.54 | 0.63 | 0.68 | 0.71 | **0.83** | **0.90** |
| 5 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.81** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 430: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.29 | 0.32 | 0.38 | 0.41 | 0.45 | 0.56 | 0.65 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.44 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.73 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 431: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.29 | 0.32 | 0.38 | 0.41 | 0.45 | 0.56 | 0.65 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.44 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.73 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 432: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.54 |
| 5 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.38 | 0.41 | 0.43 | 0.46 | 0.47 | 0.53 | 0.59 | 0.68 | 0.73 | 0.76 | **0.87** | **0.93** |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.75 | **0.82** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 9 | 0.09 | 0.19 | 0.28 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.87** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.26 | 0.40 | 0.52 | 0.62 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.43 | 0.64 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 433: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.54 |
| 5 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.38 | 0.41 | 0.43 | 0.46 | 0.47 | 0.53 | 0.59 | 0.68 | 0.73 | 0.76 | **0.87** | **0.93** |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.75 | **0.82** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 9 | 0.09 | 0.19 | 0.28 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.87** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.26 | 0.40 | 0.52 | 0.62 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.43 | 0.64 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 434: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.32 |
| 5 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.35 | 0.42 | 0.45 | 0.48 | 0.60 | 0.69 |
| 7 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.53 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 9 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 11 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 13 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.18 | 0.44 | 0.64 | 0.78 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 435: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.32 |
| 5 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.35 | 0.42 | 0.45 | 0.48 | 0.60 | 0.69 |
| 7 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.53 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 9 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 11 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 13 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.18 | 0.44 | 0.64 | 0.78 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 436: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.36 | 0.41 | 0.49 | 0.52 | 0.56 | 0.68 | 0.78 |
| 5 | 0.07 | 0.12 | 0.17 | 0.22 | 0.28 | 0.33 | 0.37 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **1.00** |
| 7 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.75 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 437: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.36 | 0.41 | 0.49 | 0.52 | 0.56 | 0.68 | 0.78 |
| 5 | 0.07 | 0.12 | 0.17 | 0.22 | 0.28 | 0.33 | 0.37 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **1.00** |
| 7 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.75 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 438: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.50 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.44 | 0.49 | 0.55 | 0.64 | 0.68 | 0.72 | **0.84** | **0.91** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.94** | **0.98** | **1.00** |
| 9 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.40 | 0.60 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.37 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 439: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.50 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.44 | 0.49 | 0.55 | 0.64 | 0.68 | 0.72 | **0.84** | **0.91** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.94** | **0.98** | **1.00** |
| 9 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.40 | 0.60 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.37 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 440: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.35 | 0.43 | 0.46 | 0.49 | 0.61 | 0.71 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.37 | 0.41 | 0.44 | 0.48 | 0.52 | 0.55 | 0.58 | 0.61 | 0.63 | 0.70 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 7 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** |
| 9 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 441: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.35 | 0.43 | 0.46 | 0.49 | 0.61 | 0.71 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.37 | 0.41 | 0.44 | 0.48 | 0.52 | 0.55 | 0.58 | 0.61 | 0.63 | 0.70 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 7 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** |
| 9 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 442: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.36 | 0.44 |
| 5 | 0.05 | 0.08 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.64 | 0.77 | **0.85** |
| 7 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.96** | **0.99** |
| 9 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.65 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.35 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.17 | 0.42 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.72 | **0.86** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.41 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 443: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.36 | 0.44 |
| 5 | 0.05 | 0.08 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.64 | 0.77 | **0.85** |
| 7 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.96** | **0.99** |
| 9 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.65 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.35 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.17 | 0.42 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.72 | **0.86** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.41 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 444: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.37 | 0.46 | 0.55 |
| 5 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.94** |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.42 | 0.47 | 0.52 | 0.56 | 0.61 | 0.65 | 0.68 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 9 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.52 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.31 | 0.72 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 445: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.37 | 0.46 | 0.55 |
| 5 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.94** |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.42 | 0.47 | 0.52 | 0.56 | 0.61 | 0.65 | 0.68 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 9 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.52 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.31 | 0.72 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 446: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.26 | 0.32 |
| 5 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.27 | 0.31 | 0.35 | 0.42 | 0.45 | 0.48 | 0.60 | 0.70 |
| 7 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 9 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 11 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 13 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.47 | 0.61 | 0.71 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.21 | 0.51 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 447: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.26 | 0.32 |
| 5 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.27 | 0.31 | 0.35 | 0.42 | 0.45 | 0.48 | 0.60 | 0.70 |
| 7 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 9 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 11 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 13 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.47 | 0.61 | 0.71 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.21 | 0.51 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 448: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 7 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 449: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 7 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 450: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.34 | 0.43 | 0.51 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 9 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.75 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 451: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.34 | 0.43 | 0.51 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 9 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.75 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 452: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.28 | 0.32 | 0.36 | 0.43 | 0.47 | 0.50 | 0.62 | 0.72 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.97** | **0.99** |
| 7 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 453: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.28 | 0.32 | 0.36 | 0.43 | 0.47 | 0.50 | 0.62 | 0.72 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.97** | **0.99** |
| 7 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 454: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 5 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.86** |
| 7 | 0.06 | 0.11 | 0.16 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 9 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.42 | 0.55 | 0.65 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.18 | 0.43 | 0.63 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 455: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 5 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.86** |
| 7 | 0.06 | 0.11 | 0.16 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 9 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.42 | 0.55 | 0.65 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.18 | 0.43 | 0.63 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 456: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 7 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 457: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.42 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 7 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 458: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.34 | 0.43 | 0.51 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 9 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.75 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 459: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.34 | 0.43 | 0.51 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 9 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.37 | 0.48 | 0.59 | 0.67 | 0.75 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 460: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 5 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 461: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.21 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 5 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 462: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.28 | 0.32 | 0.36 | 0.43 | 0.47 | 0.50 | 0.62 | 0.72 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.97** | **0.99** |
| 7 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 463: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.28 | 0.32 | 0.36 | 0.43 | 0.47 | 0.50 | 0.62 | 0.72 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.97** | **0.99** |
| 7 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.55 | 0.69 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 464: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.29 | 0.32 | 0.35 | 0.37 | 0.39 | 0.42 | 0.43 | 0.49 | 0.54 | 0.63 | 0.68 | 0.71 | **0.83** | **0.90** |
| 5 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.81** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 465: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.29 | 0.32 | 0.35 | 0.37 | 0.39 | 0.42 | 0.43 | 0.49 | 0.54 | 0.63 | 0.68 | 0.71 | **0.83** | **0.90** |
| 5 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.77 | **0.81** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.12 | 0.26 | 0.40 | 0.52 | 0.63 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 466: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.29 | 0.32 | 0.38 | 0.41 | 0.45 | 0.56 | 0.65 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.44 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.73 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 467: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.29 | 0.32 | 0.38 | 0.41 | 0.45 | 0.56 | 0.65 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.44 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.73 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 468: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.14 | 0.16 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.54 | 0.58 | 0.62 | 0.74 | **0.83** |
| 5 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.68 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 7 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.54 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 469: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.54 |
| 5 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.38 | 0.41 | 0.43 | 0.46 | 0.47 | 0.53 | 0.59 | 0.68 | 0.73 | 0.76 | **0.87** | **0.93** |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.30 | 0.36 | 0.41 | 0.46 | 0.51 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.75 | **0.82** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 9 | 0.09 | 0.19 | 0.28 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.87** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.26 | 0.40 | 0.52 | 0.62 | 0.71 | 0.78 | **0.84** | **0.88** | **0.91** | **0.94** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.43 | 0.64 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 470: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.24 | 0.26 | 0.32 | 0.34 | 0.37 | 0.47 | 0.55 |
| 5 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.69 | 0.74 | 0.77 | **0.88** | **0.94** |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.47 | 0.52 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 9 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 471: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.32 |
| 5 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.35 | 0.42 | 0.45 | 0.48 | 0.60 | 0.69 |
| 7 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.41 | 0.44 | 0.46 | 0.47 | 0.53 | 0.59 | 0.69 | 0.73 | 0.76 | **0.87** | **0.93** |
| 9 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 11 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 13 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.18 | 0.44 | 0.64 | 0.78 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 472: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.36 | 0.39 | 0.42 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.68 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 5 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.21 | 0.52 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.39 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 473: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.36 | 0.41 | 0.49 | 0.52 | 0.56 | 0.68 | 0.78 |
| 5 | 0.07 | 0.12 | 0.17 | 0.22 | 0.28 | 0.33 | 0.37 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **1.00** |
| 7 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.75 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.29 | 0.45 | 0.58 | 0.69 | 0.77 | **0.84** | **0.89** | **0.92** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 474: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | **0.80** |
| 5 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.48 | 0.52 | 0.57 | 0.60 | 0.64 | 0.67 | 0.71 | 0.72 | 0.78 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 7 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.29 | 0.67 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 475: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.50 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.44 | 0.49 | 0.55 | 0.64 | 0.68 | 0.72 | **0.84** | **0.91** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.94** | **0.98** | **1.00** |
| 9 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.40 | 0.60 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.37 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 476: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.45 | 0.48 | 0.49 | 0.55 | 0.61 | 0.71 | 0.75 | 0.78 | **0.89** | **0.94** |
| 5 | 0.09 | 0.17 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 477: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.35 | 0.43 | 0.46 | 0.49 | 0.61 | 0.71 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.37 | 0.41 | 0.44 | 0.48 | 0.52 | 0.55 | 0.58 | 0.61 | 0.63 | 0.70 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 7 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.67 | 0.72 | 0.76 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** |
| 9 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 478: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.36 | 0.44 | 0.47 | 0.51 | 0.63 | 0.72 |
| 5 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.64 | 0.71 | 0.77 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 7 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.51 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 9 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 479: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.36 | 0.44 |
| 5 | 0.05 | 0.08 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.64 | 0.77 | **0.85** |
| 7 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.96** | **0.99** |
| 9 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.65 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.42 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.35 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.17 | 0.42 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.72 | **0.86** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.41 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 480: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 |
| 5 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.45 | 0.48 | 0.59 | 0.69 |
| 7 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.43 | 0.46 | 0.47 | 0.53 | 0.59 | 0.68 | 0.72 | 0.76 | **0.87** | **0.93** |
| 9 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 11 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.65 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 13 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.63 | 0.70 | 0.75 | **0.80** | **0.83** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.18 | 0.43 | 0.64 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 481: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.31 |
| 5 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.45 | 0.48 | 0.59 | 0.69 |
| 7 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.43 | 0.46 | 0.47 | 0.53 | 0.59 | 0.68 | 0.72 | 0.76 | **0.87** | **0.93** |
| 9 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 11 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.43 | 0.50 | 0.55 | 0.61 | 0.65 | 0.70 | 0.74 | 0.77 | **0.80** | **0.83** | **0.84** | **0.89** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 13 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.63 | 0.70 | 0.75 | **0.80** | **0.83** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.30 | 0.46 | 0.60 | 0.71 | 0.79 | **0.85** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.18 | 0.43 | 0.64 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 482: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.18 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.18 | 0.20 | 0.24 | 0.25 | 0.27 | 0.35 | 0.42 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 9 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 11 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.36 | 0.39 | 0.42 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.68 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 13 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 15 | 0.08 | 0.15 | 0.22 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 17 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.57 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 19 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.11 | 0.25 | 0.38 | 0.49 | 0.60 | 0.68 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 483: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.18 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.18 | 0.20 | 0.24 | 0.25 | 0.27 | 0.35 | 0.42 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.44 | 0.48 | 0.59 | 0.69 |
| 9 | 0.05 | 0.08 | 0.10 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.33 | 0.35 | 0.37 | 0.40 | 0.41 | 0.46 | 0.51 | 0.61 | 0.65 | 0.69 | **0.81** | **0.88** |
| 11 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.36 | 0.39 | 0.42 | 0.46 | 0.49 | 0.52 | 0.55 | 0.56 | 0.63 | 0.68 | 0.78 | **0.82** | **0.85** | **0.93** | **0.97** |
| 13 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 15 | 0.08 | 0.15 | 0.22 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 17 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.57 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 19 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.11 | 0.25 | 0.38 | 0.49 | 0.60 | 0.68 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 484: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.42 | 0.50 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.29 | 0.32 | 0.34 | 0.37 | 0.39 | 0.42 | 0.43 | 0.49 | 0.54 | 0.63 | 0.67 | 0.71 | **0.83** | **0.90** |
| 7 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.72 | 0.77 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.23 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 485: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.10 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.42 | 0.50 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.29 | 0.32 | 0.34 | 0.37 | 0.39 | 0.42 | 0.43 | 0.49 | 0.54 | 0.63 | 0.67 | 0.71 | **0.83** | **0.90** |
| 7 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.72 | 0.77 | **0.80** | **0.83** | **0.86** | **0.88** | **0.89** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.11 | 0.24 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.20 | 0.48 | 0.70 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.23 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 486: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.38 | 0.41 | 0.44 | 0.55 | 0.65 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.90** |
| 9 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.84** | **0.88** | **0.90** | **0.96** | **0.99** |
| 11 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 13 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 487: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.23 | 0.24 | 0.25 | 0.28 | 0.31 | 0.38 | 0.41 | 0.44 | 0.55 | 0.65 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.90** |
| 9 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.84** | **0.88** | **0.90** | **0.96** | **0.99** |
| 11 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 13 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 488: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.36 | 0.43 |
| 5 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 7 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.33 | 0.37 | 0.41 | 0.44 | 0.48 | 0.52 | 0.55 | 0.58 | 0.61 | 0.63 | 0.70 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 9 | 0.08 | 0.15 | 0.22 | 0.30 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.77 | **0.80** | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.10 | 0.21 | 0.31 | 0.41 | 0.50 | 0.59 | 0.66 | 0.72 | 0.77 | **0.82** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.32 | 0.73 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 489: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.36 | 0.43 |
| 5 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 7 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.33 | 0.37 | 0.41 | 0.44 | 0.48 | 0.52 | 0.55 | 0.58 | 0.61 | 0.63 | 0.70 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 9 | 0.08 | 0.15 | 0.22 | 0.30 | 0.36 | 0.43 | 0.49 | 0.55 | 0.60 | 0.65 | 0.69 | 0.73 | 0.77 | **0.80** | **0.82** | **0.84** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.10 | 0.21 | 0.31 | 0.41 | 0.50 | 0.59 | 0.66 | 0.72 | 0.77 | **0.82** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.17 | 0.42 | 0.62 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.32 | 0.73 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 490: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.33 | 0.35 | 0.38 | 0.48 | 0.57 |
| 7 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 9 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.49 | 0.52 | 0.54 | 0.56 | 0.62 | 0.68 | 0.78 | **0.81** | **0.85** | **0.93** | **0.97** |
| 11 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.40 | 0.44 | 0.49 | 0.54 | 0.58 | 0.62 | 0.65 | 0.69 | 0.72 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 13 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 15 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.11 | 0.24 | 0.37 | 0.49 | 0.59 | 0.67 | 0.75 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.13 | 0.29 | 0.44 | 0.57 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.21 | 0.52 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 491: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.33 | 0.35 | 0.38 | 0.48 | 0.57 |
| 7 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 9 | 0.06 | 0.10 | 0.14 | 0.17 | 0.21 | 0.25 | 0.28 | 0.32 | 0.35 | 0.39 | 0.42 | 0.45 | 0.49 | 0.52 | 0.54 | 0.56 | 0.62 | 0.68 | 0.78 | **0.81** | **0.85** | **0.93** | **0.97** |
| 11 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.40 | 0.44 | 0.49 | 0.54 | 0.58 | 0.62 | 0.65 | 0.69 | 0.72 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 13 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 15 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.11 | 0.24 | 0.37 | 0.49 | 0.59 | 0.67 | 0.75 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.13 | 0.29 | 0.44 | 0.57 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.21 | 0.52 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 492: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 493: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 494: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 5 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.36 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 495: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 5 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.36 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 496: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.63 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.21 | 0.51 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.54 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 497: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.63 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.21 | 0.51 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.54 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 498: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.36 | 0.43 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 499: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.36 | 0.43 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 500: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 3 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 501: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 3 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 502: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.18 | 0.22 | 0.24 | 0.25 | 0.32 | 0.39 |
| 3 | 0.07 | 0.14 | 0.20 | 0.26 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.79 | **0.85** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 503: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.18 | 0.22 | 0.24 | 0.25 | 0.32 | 0.39 |
| 3 | 0.07 | 0.14 | 0.20 | 0.26 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.79 | **0.85** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 504: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.54 |
| 3 | 0.09 | 0.19 | 0.28 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.87** | **0.90** | **0.92** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.18 | 0.43 | 0.64 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 505: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.26 | 0.31 |
| 3 | 0.06 | 0.12 | 0.16 | 0.21 | 0.26 | 0.31 | 0.35 | 0.40 | 0.44 | 0.48 | 0.52 | 0.56 | 0.59 | 0.63 | 0.66 | 0.67 | 0.74 | 0.79 | **0.87** | **0.90** | **0.92** | **0.98** | **0.99** |
| 5 | 0.11 | 0.24 | 0.37 | 0.49 | 0.59 | 0.68 | 0.75 | **0.81** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 506: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 3 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.48 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.71 | 0.72 | 0.78 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 5 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.29 | 0.67 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 507: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 | 0.13 | 0.16 | 0.19 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.32 | 0.35 | 0.38 | 0.40 | 0.42 | 0.44 | 0.49 | 0.55 | 0.64 | 0.68 | 0.72 | **0.84** | **0.91** |
| 5 | 0.08 | 0.16 | 0.23 | 0.30 | 0.38 | 0.44 | 0.51 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.40 | 0.60 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 508: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 3 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 509: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 3 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 510: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.34 | 0.43 | 0.51 |
| 3 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.51 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.17 | 0.40 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 511: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 3 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.96** | **0.99** |
| 5 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.72 | 0.78 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.45 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.66 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 512: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.30 | 0.33 | 0.40 | 0.43 | 0.46 | 0.58 | 0.67 |
| 3 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 513: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.40 |
| 3 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.40 | 0.45 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.72 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.33 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 514: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.26 | 0.28 | 0.30 | 0.38 | 0.45 |
| 3 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.72 | 0.75 | 0.79 | **0.82** | **0.84** | **0.86** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 515: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.26 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.97** |
| 5 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 516: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.24 | 0.27 | 0.33 | 0.35 | 0.38 | 0.48 | 0.57 |
| 3 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 517: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.24 | 0.27 | 0.33 | 0.35 | 0.38 | 0.48 | 0.57 |
| 3 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.89** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 518: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 3 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 5 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.54 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 519: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.17 | 0.20 | 0.21 | 0.23 | 0.29 | 0.35 |
| 3 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 5 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.54 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 520: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.36 | 0.40 | 0.48 | 0.52 | 0.55 | 0.68 | 0.77 |
| 3 | 0.13 | 0.29 | 0.44 | 0.57 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 521: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.36 | 0.40 | 0.48 | 0.52 | 0.55 | 0.68 | 0.77 |
| 3 | 0.13 | 0.29 | 0.44 | 0.57 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 522: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.45 | 0.53 |
| 3 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 523: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.45 | 0.53 |
| 3 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 524: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.36 | 0.43 | 0.46 | 0.50 | 0.62 | 0.71 |
| 3 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.24 | 0.59 | **0.80** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 525: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.36 | 0.43 | 0.46 | 0.50 | 0.62 | 0.71 |
| 3 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.24 | 0.59 | **0.80** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 526: Power Table for $\gamma_{000}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.39 | 0.47 |
| 3 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 527: Power Table for $\gamma_{100}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.39 | 0.47 |
| 3 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 528: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 529: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 530: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 5 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.36 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 531: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 5 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.36 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 532: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.63 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.21 | 0.51 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.54 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 533: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.63 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.21 | 0.51 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.54 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 534: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.36 | 0.43 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 535: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.36 | 0.43 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 536: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 3 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 537: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 3 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 538: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.18 | 0.22 | 0.24 | 0.25 | 0.32 | 0.39 |
| 3 | 0.07 | 0.14 | 0.20 | 0.26 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.79 | **0.85** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 539: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.18 | 0.22 | 0.24 | 0.25 | 0.32 | 0.39 |
| 3 | 0.07 | 0.14 | 0.20 | 0.26 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.79 | **0.85** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 540: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.54 |
| 3 | 0.09 | 0.19 | 0.28 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.87** | **0.90** | **0.92** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.18 | 0.43 | 0.64 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 541: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.54 |
| 3 | 0.09 | 0.19 | 0.28 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.87** | **0.90** | **0.92** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.18 | 0.43 | 0.64 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 542: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 3 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.48 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.71 | 0.72 | 0.78 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 5 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.29 | 0.67 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 543: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 3 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.48 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.71 | 0.72 | 0.78 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 5 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.29 | 0.67 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 544: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 3 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 545: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 3 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 546: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.34 | 0.43 | 0.51 |
| 3 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.51 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.17 | 0.40 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 547: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.34 | 0.43 | 0.51 |
| 3 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.51 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.17 | 0.40 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 548: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.30 | 0.33 | 0.40 | 0.43 | 0.46 | 0.58 | 0.67 |
| 3 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 549: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.30 | 0.33 | 0.40 | 0.43 | 0.46 | 0.58 | 0.67 |
| 3 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 550: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.26 | 0.28 | 0.30 | 0.38 | 0.45 |
| 3 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.72 | 0.75 | 0.79 | **0.82** | **0.84** | **0.86** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 551: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.26 | 0.28 | 0.30 | 0.38 | 0.45 |
| 3 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.72 | 0.75 | 0.79 | **0.82** | **0.84** | **0.86** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 552: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 3 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.42 | 0.46 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.69 | 0.70 | 0.77 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **1.00** |
| 5 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 553: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 3 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.42 | 0.46 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.69 | 0.70 | 0.77 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **1.00** |
| 5 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 554: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 5 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 555: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 5 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 556: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 557: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 558: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 5 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.36 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 559: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 5 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.36 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 560: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.36 | 0.43 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 561: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.36 | 0.43 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 562: Power Table for $\gamma_{010}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.92** | **0.93** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.52 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 563: Power Table for $\gamma_{001}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.92** | **0.93** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.52 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 564: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 565: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 566: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 5 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.36 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 567: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 5 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.36 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 568: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.63 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.21 | 0.51 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.54 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 569: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.63 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.21 | 0.51 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.54 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 570: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.36 | 0.43 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 571: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.36 | 0.43 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 572: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 3 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 573: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 3 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 574: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.18 | 0.22 | 0.24 | 0.25 | 0.32 | 0.39 |
| 3 | 0.07 | 0.14 | 0.20 | 0.26 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.79 | **0.85** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 575: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.18 | 0.22 | 0.24 | 0.25 | 0.32 | 0.39 |
| 3 | 0.07 | 0.14 | 0.20 | 0.26 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.79 | **0.85** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 576: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.26 | 0.31 |
| 3 | 0.06 | 0.12 | 0.16 | 0.21 | 0.26 | 0.31 | 0.35 | 0.40 | 0.44 | 0.48 | 0.52 | 0.56 | 0.59 | 0.63 | 0.66 | 0.67 | 0.74 | 0.79 | **0.87** | **0.90** | **0.92** | **0.98** | **0.99** |
| 5 | 0.11 | 0.24 | 0.37 | 0.49 | 0.59 | 0.68 | 0.75 | **0.81** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 577: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.26 | 0.31 |
| 3 | 0.06 | 0.12 | 0.16 | 0.21 | 0.26 | 0.31 | 0.35 | 0.40 | 0.44 | 0.48 | 0.52 | 0.56 | 0.59 | 0.63 | 0.66 | 0.67 | 0.74 | 0.79 | **0.87** | **0.90** | **0.92** | **0.98** | **0.99** |
| 5 | 0.11 | 0.24 | 0.37 | 0.49 | 0.59 | 0.68 | 0.75 | **0.81** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 578: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 | 0.13 | 0.16 | 0.19 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.32 | 0.35 | 0.38 | 0.40 | 0.42 | 0.44 | 0.49 | 0.55 | 0.64 | 0.68 | 0.72 | **0.84** | **0.91** |
| 5 | 0.08 | 0.16 | 0.23 | 0.30 | 0.38 | 0.44 | 0.51 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.40 | 0.60 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 579: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 | 0.13 | 0.16 | 0.19 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.32 | 0.35 | 0.38 | 0.40 | 0.42 | 0.44 | 0.49 | 0.55 | 0.64 | 0.68 | 0.72 | **0.84** | **0.91** |
| 5 | 0.08 | 0.16 | 0.23 | 0.30 | 0.38 | 0.44 | 0.51 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.40 | 0.60 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 580: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 3 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 581: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 3 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 582: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 3 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.96** | **0.99** |
| 5 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.72 | 0.78 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.45 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.66 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 583: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 3 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.96** | **0.99** |
| 5 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.72 | 0.78 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.45 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.66 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 584: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.40 |
| 3 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.40 | 0.45 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.72 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.33 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 585: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.40 |
| 3 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.40 | 0.45 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.72 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.33 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 586: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.26 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.97** |
| 5 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 587: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.26 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.97** |
| 5 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 588: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 3 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.42 | 0.46 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.69 | 0.70 | 0.77 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **1.00** |
| 5 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 589: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 3 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.42 | 0.46 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.69 | 0.70 | 0.77 | **0.82** | **0.89** | **0.92** | **0.94** | **0.98** | **1.00** |
| 5 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 590: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 5 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 591: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 5 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.46 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.74 | **0.80** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 592: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 593: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 594: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 5 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.36 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 595: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 5 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.36 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 596: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.36 | 0.43 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 597: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.36 | 0.43 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 598: Power Table for $\gamma_{110}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.92** | **0.93** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.52 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 599: Power Table for $\gamma_{101}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.92** | **0.93** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.15 | 0.37 | 0.55 | 0.70 | **0.80** | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.52 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 600: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 601: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.40 | 0.48 | 0.54 | 0.60 | 0.66 | 0.70 | 0.75 | 0.78 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 602: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 5 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.36 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 603: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 5 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.62 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.36 | 0.79 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 604: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.63 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.21 | 0.51 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.54 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 605: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.63 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.21 | 0.51 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.54 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 606: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.36 | 0.43 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 607: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.36 | 0.43 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 608: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 3 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 609: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.25 | 0.28 | 0.33 | 0.36 | 0.39 | 0.49 | 0.58 |
| 3 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 610: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.18 | 0.22 | 0.24 | 0.25 | 0.32 | 0.39 |
| 3 | 0.07 | 0.14 | 0.20 | 0.26 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.79 | **0.85** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 611: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.18 | 0.22 | 0.24 | 0.25 | 0.32 | 0.39 |
| 3 | 0.07 | 0.14 | 0.20 | 0.26 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.59 | 0.63 | 0.67 | 0.71 | 0.74 | 0.77 | 0.79 | **0.85** | **0.89** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 612: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.54 |
| 3 | 0.09 | 0.19 | 0.28 | 0.38 | 0.46 | 0.54 | 0.61 | 0.67 | 0.73 | 0.77 | **0.81** | **0.85** | **0.87** | **0.90** | **0.92** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.18 | 0.43 | 0.64 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 613: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.18 | 0.19 | 0.20 | 0.26 | 0.31 |
| 3 | 0.06 | 0.12 | 0.16 | 0.21 | 0.26 | 0.31 | 0.35 | 0.40 | 0.44 | 0.48 | 0.52 | 0.56 | 0.59 | 0.63 | 0.66 | 0.67 | 0.74 | 0.79 | **0.87** | **0.90** | **0.92** | **0.98** | **0.99** |
| 5 | 0.11 | 0.24 | 0.37 | 0.49 | 0.59 | 0.68 | 0.75 | **0.81** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 614: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 3 | 0.07 | 0.12 | 0.18 | 0.23 | 0.29 | 0.34 | 0.39 | 0.44 | 0.48 | 0.53 | 0.57 | 0.61 | 0.64 | 0.67 | 0.71 | 0.72 | 0.78 | **0.84** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 5 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.29 | 0.67 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 615: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 4\sigma_e^2), r \sim N(0, 2\sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 | 0.13 | 0.16 | 0.19 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.32 | 0.35 | 0.38 | 0.40 | 0.42 | 0.44 | 0.49 | 0.55 | 0.64 | 0.68 | 0.72 | **0.84** | **0.91** |
| 5 | 0.08 | 0.16 | 0.23 | 0.30 | 0.38 | 0.44 | 0.51 | 0.56 | 0.62 | 0.66 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.12 | 0.26 | 0.40 | 0.53 | 0.63 | 0.72 | 0.79 | **0.84** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.40 | 0.60 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 616: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 3 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 617: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 3 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 618: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.31 | 0.34 | 0.43 | 0.51 |
| 3 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.51 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.17 | 0.40 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 619: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 3 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.96** | **0.99** |
| 5 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.72 | 0.78 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.45 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.66 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 620: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.30 | 0.33 | 0.40 | 0.43 | 0.46 | 0.58 | 0.67 |
| 3 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 621: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.40 |
| 3 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.40 | 0.45 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.72 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.33 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 622: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.26 | 0.28 | 0.30 | 0.38 | 0.45 |
| 3 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.72 | 0.75 | 0.79 | **0.82** | **0.84** | **0.86** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 623: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.26 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.47 | 0.50 | 0.53 | 0.56 | 0.57 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.97** |
| 5 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 624: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 5 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.38 | 0.58 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 625: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 5 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.38 | 0.58 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 626: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.54 | 0.56 | 0.58 | 0.64 | 0.70 | **0.80** | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.72 | 0.75 | 0.79 | **0.82** | **0.84** | **0.86** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.54 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 627: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,4\sigma_e^2), r \sim N(0,2\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.54 | 0.56 | 0.58 | 0.64 | 0.70 | **0.80** | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.72 | 0.75 | 0.79 | **0.82** | **0.84** | **0.86** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.54 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 628: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 3 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.59 | 0.60 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 5 | 0.10 | 0.21 | 0.33 | 0.43 | 0.53 | 0.61 | 0.68 | 0.74 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 629: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 3 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.59 | 0.60 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 5 | 0.10 | 0.21 | 0.33 | 0.43 | 0.53 | 0.61 | 0.68 | 0.74 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.16 | 0.37 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 630: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.87** |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.45 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.72 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.11 | 0.24 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 631: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.87** |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.45 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.72 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.11 | 0.24 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.20 | 0.50 | 0.71 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 632: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.28 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.67 | 0.76 | **0.80** | **0.83** | **0.92** | **0.97** |
| 5 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.86** | **0.88** | **0.91** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.37 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 633: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.28 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.67 | 0.76 | **0.80** | **0.83** | **0.92** | **0.97** |
| 5 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.86** | **0.88** | **0.91** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.37 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 634: Power Table for $\gamma_{011}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 5 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 7 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 635: Power Table for $\gamma_{111}$ Predictor Distributions $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 5 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.35 | 0.40 | 0.45 | 0.50 | 0.54 | 0.58 | 0.62 | 0.66 | 0.69 | 0.72 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 7 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.59 | 0.66 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.23 | 0.57 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

# Appendix B.4 Level-4 Power Tables

Table 636: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 637: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 638: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | $n$ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 639: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | $n$ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 640: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 641: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 642: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 643: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 644: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 645: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 646: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 647: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 648: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.36 | 0.40 | 0.48 | 0.52 | 0.55 | 0.68 | 0.77 |
| 7 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 9 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.50 | 0.72 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.52 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 649: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.46 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 650: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 651: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 7 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.90** |
| 11 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.44 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 15 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 652: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.38 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 653: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | 0.79 |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 654: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | **0.80** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 655: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.50 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.71 | **0.83** | **0.90** |
| 9 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 11 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 656: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 5 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.51 | 0.53 | 0.59 | 0.65 | 0.75 | 0.78 | **0.82** | **0.91** | **0.96** |
| 7 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.34 | 0.77 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 657: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.55 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 658: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.66 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 659: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.59 | 0.63 | 0.66 | 0.79 | **0.87** |
| 9 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.64 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.91** | **0.94** | **0.98** | **0.99** |
| 11 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.39 | 0.58 | 0.72 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 660: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 7 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.58 | 0.61 | 0.65 | 0.68 | 0.72 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 9 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.76 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.54 | 0.69 | 0.79 | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 661: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.34 | 0.39 | 0.43 | 0.52 | 0.56 | 0.59 | 0.72 | **0.81** |
| 7 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.58 | 0.61 | 0.65 | 0.68 | 0.72 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 9 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.76 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.36 | 0.54 | 0.69 | 0.79 | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 662: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.52 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.56 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.42 | 0.47 | 0.52 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 11 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.66 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 663: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.52 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.56 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.42 | 0.47 | 0.52 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.76 | **0.82** | **0.87** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 11 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.66 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 664: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.53 |
| 5 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.44 | 0.48 | 0.52 | 0.55 | 0.59 | 0.62 | 0.65 | 0.67 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 7 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.45 | 0.65 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 665: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.32 | 0.35 | 0.44 | 0.53 |
| 5 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.44 | 0.48 | 0.52 | 0.55 | 0.59 | 0.62 | 0.65 | 0.67 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 7 | 0.11 | 0.24 | 0.37 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.45 | 0.65 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 666: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 5 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 7 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 9 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 667: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 5 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 7 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.46 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.73 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 9 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.25 | 0.61 | **0.83** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 668: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.39 | 0.47 |
| 5 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.61 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 7 | 0.10 | 0.21 | 0.33 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 669: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.18 | 0.20 | 0.22 | 0.27 | 0.29 | 0.31 | 0.39 | 0.47 |
| 5 | 0.06 | 0.10 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.46 | 0.50 | 0.53 | 0.56 | 0.59 | 0.61 | 0.67 | 0.73 | **0.82** | **0.85** | **0.88** | **0.95** | **0.98** |
| 7 | 0.10 | 0.21 | 0.33 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 670: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 5 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.45 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 7 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.41 | 0.46 | 0.50 | 0.55 | 0.59 | 0.63 | 0.67 | 0.70 | 0.73 | 0.74 | **0.81** | **0.86** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 9 | 0.10 | 0.23 | 0.34 | 0.45 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 671: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 5 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.45 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 7 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.41 | 0.46 | 0.50 | 0.55 | 0.59 | 0.63 | 0.67 | 0.70 | 0.73 | 0.74 | **0.81** | **0.86** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 9 | 0.10 | 0.23 | 0.34 | 0.45 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 672: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 673: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 674: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 675: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 676: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 677: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 678: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 679: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 680: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 681: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 682: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 683: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 684: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.36 | 0.40 | 0.48 | 0.52 | 0.55 | 0.68 | 0.77 |
| 7 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 9 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.50 | 0.72 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.52 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 685: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.36 | 0.40 | 0.48 | 0.52 | 0.55 | 0.68 | 0.77 |
| 7 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 9 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.50 | 0.72 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.52 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 686: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 687: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 688: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.38 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 689: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.38 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 690: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | **0.80** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 691: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | **0.80** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 692: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 5 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.51 | 0.53 | 0.59 | 0.65 | 0.75 | 0.78 | **0.82** | **0.91** | **0.96** |
| 7 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.34 | 0.77 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 693: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 5 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.51 | 0.53 | 0.59 | 0.65 | 0.75 | 0.78 | **0.82** | **0.91** | **0.96** |
| 7 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.34 | 0.77 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 694: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.66 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 695: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.66 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 696: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.52 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.56 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.41 | 0.47 | 0.51 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.76 | **0.82** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 11 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.24 | 0.59 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 697: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.52 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.56 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.41 | 0.47 | 0.51 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.76 | **0.82** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 11 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.24 | 0.59 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 698: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.56 | 0.65 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.87** | **0.93** |
| 11 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.39 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 699: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.56 | 0.65 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.87** | **0.93** |
| 11 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.39 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 700: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 5 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.39 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 7 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.45 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.72 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 9 | 0.11 | 0.25 | 0.38 | 0.51 | 0.61 | 0.70 | 0.77 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 701: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 5 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.39 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 7 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.45 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.72 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 9 | 0.11 | 0.25 | 0.38 | 0.51 | 0.61 | 0.70 | 0.77 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 702: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.40 | 0.50 | 0.59 |
| 7 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.51 | 0.57 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 9 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.21 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 703: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.40 | 0.50 | 0.59 |
| 7 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.51 | 0.57 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 9 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.21 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 704: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 5 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 7 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 9 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.37 | 0.56 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 705: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 5 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 7 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 9 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.37 | 0.56 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 706: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.45 | 0.53 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.46 | 0.51 | 0.57 | 0.67 | 0.71 | 0.74 | **0.86** | **0.92** |
| 9 | 0.07 | 0.13 | 0.19 | 0.26 | 0.31 | 0.37 | 0.43 | 0.48 | 0.53 | 0.57 | 0.62 | 0.66 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.88** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 707: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.45 | 0.53 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.46 | 0.51 | 0.57 | 0.67 | 0.71 | 0.74 | **0.86** | **0.92** |
| 9 | 0.07 | 0.13 | 0.19 | 0.26 | 0.31 | 0.37 | 0.43 | 0.48 | 0.53 | 0.57 | 0.62 | 0.66 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.88** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 708: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 709: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 710: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 711: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 712: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 713: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 714: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 715: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 716: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 717: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 718: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 719: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 720: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.36 | 0.40 | 0.48 | 0.52 | 0.55 | 0.68 | 0.77 |
| 7 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 9 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.50 | 0.72 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.52 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 721: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.46 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 722: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 723: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 7 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.90** |
| 11 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.44 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 15 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 724: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.38 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 725: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | 0.79 |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 726: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | **0.80** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 727: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.50 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.71 | **0.83** | **0.90** |
| 9 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 11 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 728: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 5 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.51 | 0.53 | 0.59 | 0.65 | 0.75 | 0.78 | **0.82** | **0.91** | **0.96** |
| 7 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.34 | 0.77 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 729: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.55 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 730: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.66 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 731: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.59 | 0.63 | 0.66 | 0.79 | **0.87** |
| 9 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.64 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.91** | **0.94** | **0.98** | **0.99** |
| 11 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.39 | 0.58 | 0.72 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 732: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.52 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.56 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.41 | 0.47 | 0.51 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.76 | **0.82** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 11 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.24 | 0.59 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 733: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.52 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.56 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.41 | 0.47 | 0.51 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.76 | **0.82** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 11 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.24 | 0.59 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 734: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.56 | 0.65 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.87** | **0.93** |
| 11 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.39 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 735: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.56 | 0.65 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.87** | **0.93** |
| 11 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.39 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 736: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 5 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.39 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 7 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.45 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.72 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 9 | 0.11 | 0.25 | 0.38 | 0.51 | 0.61 | 0.70 | 0.77 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 737: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 5 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.39 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 7 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.45 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.72 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 9 | 0.11 | 0.25 | 0.38 | 0.51 | 0.61 | 0.70 | 0.77 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 738: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.40 | 0.50 | 0.59 |
| 7 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.51 | 0.57 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 9 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.21 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 739: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.40 | 0.50 | 0.59 |
| 7 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.51 | 0.57 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 9 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.21 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 740: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 5 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 7 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 9 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.37 | 0.56 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 741: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 5 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 7 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 9 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.37 | 0.56 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 742: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.45 | 0.53 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.46 | 0.51 | 0.57 | 0.67 | 0.71 | 0.74 | **0.86** | **0.92** |
| 9 | 0.07 | 0.13 | 0.19 | 0.26 | 0.31 | 0.37 | 0.43 | 0.48 | 0.53 | 0.57 | 0.62 | 0.66 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.88** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 743: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.45 | 0.53 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.46 | 0.51 | 0.57 | 0.67 | 0.71 | 0.74 | **0.86** | **0.92** |
| 9 | 0.07 | 0.13 | 0.19 | 0.26 | 0.31 | 0.37 | 0.43 | 0.48 | 0.53 | 0.57 | 0.62 | 0.66 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.88** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 744: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 745: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 746: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 747: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 748: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 749: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 750: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 751: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 752: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 753: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 754: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 755: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 756: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.46 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 757: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.46 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 758: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 7 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.90** |
| 11 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.44 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 15 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 759: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 7 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.90** |
| 11 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.44 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 15 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 760: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | 0.79 |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 761: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | 0.79 |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 762: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.50 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.71 | **0.83** | **0.90** |
| 9 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 11 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 763: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.50 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.71 | **0.83** | **0.90** |
| 9 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 11 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 764: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.55 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 765: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.55 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 766: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.59 | 0.63 | 0.66 | 0.79 | **0.87** |
| 9 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.64 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.91** | **0.94** | **0.98** | **0.99** |
| 11 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.39 | 0.58 | 0.72 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 767: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.59 | 0.63 | 0.66 | 0.79 | **0.87** |
| 9 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.64 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.91** | **0.94** | **0.98** | **0.99** |
| 11 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.39 | 0.58 | 0.72 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 768: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.52 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.56 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.41 | 0.47 | 0.51 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.76 | **0.82** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 11 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.24 | 0.59 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 769: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.22 | 0.24 | 0.29 | 0.32 | 0.34 | 0.43 | 0.52 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.56 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.36 | 0.41 | 0.47 | 0.51 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 | 0.74 | 0.76 | **0.82** | **0.86** | **0.93** | **0.95** | **0.96** | **0.99** | **1.00** |
| 11 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | **0.80** | **0.86** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.24 | 0.59 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 770: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.56 | 0.65 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.87** | **0.93** |
| 11 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.39 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 771: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.56 | 0.65 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.87** | **0.93** |
| 11 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.39 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.91** | **0.93** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 772: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 5 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.39 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 7 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.45 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.72 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 9 | 0.11 | 0.25 | 0.38 | 0.51 | 0.61 | 0.70 | 0.77 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 773: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 5 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.39 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 7 | 0.07 | 0.14 | 0.21 | 0.27 | 0.34 | 0.40 | 0.45 | 0.51 | 0.56 | 0.61 | 0.65 | 0.69 | 0.72 | 0.76 | 0.79 | **0.80** | **0.86** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 9 | 0.11 | 0.25 | 0.38 | 0.51 | 0.61 | 0.70 | 0.77 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.17 | 0.41 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 774: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.40 | 0.50 | 0.59 |
| 7 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.51 | 0.57 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 9 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.21 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 775: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.40 | 0.50 | 0.59 |
| 7 | 0.06 | 0.09 | 0.13 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.51 | 0.57 | 0.63 | 0.73 | 0.77 | **0.80** | **0.90** | **0.95** |
| 9 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.59 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.21 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 776: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 5 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 7 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 9 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.37 | 0.56 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 777: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.22 | 0.27 |
| 5 | 0.05 | 0.07 | 0.09 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.40 | 0.44 | 0.53 | 0.57 | 0.61 | 0.73 | **0.82** |
| 7 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 9 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.37 | 0.56 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 778: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.45 | 0.53 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.46 | 0.51 | 0.57 | 0.67 | 0.71 | 0.74 | **0.86** | **0.92** |
| 9 | 0.07 | 0.13 | 0.19 | 0.26 | 0.31 | 0.37 | 0.43 | 0.48 | 0.53 | 0.57 | 0.62 | 0.66 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.88** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 779: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.23 | 0.25 | 0.30 | 0.33 | 0.35 | 0.45 | 0.53 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.46 | 0.51 | 0.57 | 0.67 | 0.71 | 0.74 | **0.86** | **0.92** |
| 9 | 0.07 | 0.13 | 0.19 | 0.26 | 0.31 | 0.37 | 0.43 | 0.48 | 0.53 | 0.57 | 0.62 | 0.66 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.88** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 780: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 781: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 782: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 783: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 784: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 785: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 786: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 787: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 788: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 789: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 790: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 791: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 792: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.36 | 0.40 | 0.48 | 0.52 | 0.55 | 0.68 | 0.77 |
| 7 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 9 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.50 | 0.72 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.52 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 793: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.36 | 0.40 | 0.48 | 0.52 | 0.55 | 0.68 | 0.77 |
| 7 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 9 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.50 | 0.72 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.52 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 794: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 795: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 796: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.38 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 797: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.38 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 798: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | **0.80** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 799: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | **0.80** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 800: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 5 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.51 | 0.53 | 0.59 | 0.65 | 0.75 | 0.78 | **0.82** | **0.91** | **0.96** |
| 7 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.34 | 0.77 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 801: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 5 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.51 | 0.53 | 0.59 | 0.65 | 0.75 | 0.78 | **0.82** | **0.91** | **0.96** |
| 7 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.34 | 0.77 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 802: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.66 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 803: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.66 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 804: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.56 | 0.65 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.86** | **0.93** |
| 11 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 805: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.56 | 0.65 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.86** | **0.93** |
| 11 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 806: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.33 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 11 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.91** |
| 13 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.84** | **0.88** | **0.90** | **0.96** | **0.99** |
| 15 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 17 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 807: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.33 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 11 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.91** |
| 13 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.84** | **0.88** | **0.90** | **0.96** | **0.99** |
| 15 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 17 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 808: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.39 | 0.50 | 0.59 |
| 7 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.49 | 0.51 | 0.57 | 0.63 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 9 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.58 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 809: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.39 | 0.50 | 0.59 |
| 7 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.49 | 0.51 | 0.57 | 0.63 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 9 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.58 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 810: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 7 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 9 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.66 | 0.75 | 0.79 | **0.82** | **0.92** | **0.96** |
| 11 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.71 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** |
| 13 | 0.09 | 0.20 | 0.31 | 0.40 | 0.49 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.12 | 0.29 | 0.44 | 0.57 | 0.67 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.26 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 811: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 7 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 9 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.66 | 0.75 | 0.79 | **0.82** | **0.92** | **0.96** |
| 11 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.71 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** |
| 13 | 0.09 | 0.20 | 0.31 | 0.40 | 0.49 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.12 | 0.29 | 0.44 | 0.57 | 0.67 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.26 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 812: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.53 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 813: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.53 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 814: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.46 | 0.57 | 0.67 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 11 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.40 | 0.44 | 0.49 | 0.54 | 0.58 | 0.62 | 0.65 | 0.69 | 0.72 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.15 | 0.35 | 0.52 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 815: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.46 | 0.57 | 0.67 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 11 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.40 | 0.44 | 0.49 | 0.54 | 0.58 | 0.62 | 0.65 | 0.69 | 0.72 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.15 | 0.35 | 0.52 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 816: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 817: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 818: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 819: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 820: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 821: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 822: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 823: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 824: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 825: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 826: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 827: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 828: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.36 | 0.40 | 0.48 | 0.52 | 0.55 | 0.68 | 0.77 |
| 7 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 9 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.50 | 0.72 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.52 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 829: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.46 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 830: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 831: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 7 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.90** |
| 11 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.44 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 15 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 832: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.38 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 833: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | 0.79 |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 834: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | $n$ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | **0.80** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 835: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | $n$ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.50 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.71 | **0.83** | **0.90** |
| 9 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 11 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 836: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 5 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.51 | 0.53 | 0.59 | 0.65 | 0.75 | 0.78 | **0.82** | **0.91** | **0.96** |
| 7 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.34 | 0.77 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 837: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.55 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 838: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.66 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 839: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.59 | 0.63 | 0.66 | 0.79 | **0.87** |
| 9 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.64 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.91** | **0.94** | **0.98** | **0.99** |
| 11 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.39 | 0.58 | 0.72 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 840: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.56 | 0.65 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.86** | **0.93** |
| 11 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 841: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.56 | 0.65 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.86** | **0.93** |
| 11 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 842: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.33 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 11 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.91** |
| 13 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.84** | **0.88** | **0.90** | **0.96** | **0.99** |
| 15 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 17 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 843: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.33 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 11 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.91** |
| 13 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.84** | **0.88** | **0.90** | **0.96** | **0.99** |
| 15 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 17 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 844: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.39 | 0.50 | 0.59 |
| 7 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.49 | 0.51 | 0.57 | 0.63 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 9 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.58 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 845: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.39 | 0.50 | 0.59 |
| 7 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.49 | 0.51 | 0.57 | 0.63 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 9 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.58 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 846: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 7 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 9 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.66 | 0.75 | 0.79 | **0.82** | **0.92** | **0.96** |
| 11 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.71 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** |
| 13 | 0.09 | 0.20 | 0.31 | 0.40 | 0.49 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.12 | 0.29 | 0.44 | 0.57 | 0.67 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.26 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 847: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 7 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 9 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.66 | 0.75 | 0.79 | **0.82** | **0.92** | **0.96** |
| 11 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.71 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** |
| 13 | 0.09 | 0.20 | 0.31 | 0.40 | 0.49 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.12 | 0.29 | 0.44 | 0.57 | 0.67 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.26 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 848: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.53 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 849: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.53 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 850: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.46 | 0.57 | 0.67 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 11 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.40 | 0.44 | 0.49 | 0.54 | 0.58 | 0.62 | 0.65 | 0.69 | 0.72 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.15 | 0.35 | 0.52 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 851: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.46 | 0.57 | 0.67 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 11 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.40 | 0.44 | 0.49 | 0.54 | 0.58 | 0.62 | 0.65 | 0.69 | 0.72 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.15 | 0.35 | 0.52 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 852: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 853: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 854: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 855: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 856: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 857: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 858: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 859: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 860: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 861: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 862: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 863: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 864: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.46 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 865: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.46 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 866: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 7 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.90** |
| 11 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.44 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 15 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 867: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 7 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.90** |
| 11 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.44 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 15 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 868: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | 0.79 |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 869: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | 0.79 |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 870: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.50 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.71 | **0.83** | **0.90** |
| 9 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 11 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 871: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.50 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.71 | **0.83** | **0.90** |
| 9 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 11 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 872: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.55 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 873: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.55 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 874: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.59 | 0.63 | 0.66 | 0.79 | **0.87** |
| 9 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.64 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.91** | **0.94** | **0.98** | **0.99** |
| 11 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.39 | 0.58 | 0.72 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 875: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.59 | 0.63 | 0.66 | 0.79 | **0.87** |
| 9 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.64 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.91** | **0.94** | **0.98** | **0.99** |
| 11 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.39 | 0.58 | 0.72 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 876: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.56 | 0.65 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.86** | **0.93** |
| 11 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 877: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.56 | 0.65 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.86** | **0.93** |
| 11 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 878: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.33 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 11 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.91** |
| 13 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.84** | **0.88** | **0.90** | **0.96** | **0.99** |
| 15 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 17 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 879: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.33 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 11 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.91** |
| 13 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.84** | **0.88** | **0.90** | **0.96** | **0.99** |
| 15 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 17 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 880: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.39 | 0.50 | 0.59 |
| 7 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.49 | 0.51 | 0.57 | 0.63 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 9 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.58 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 881: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.39 | 0.50 | 0.59 |
| 7 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.49 | 0.51 | 0.57 | 0.63 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 9 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.58 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 882: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 7 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 9 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.66 | 0.75 | 0.79 | **0.82** | **0.92** | **0.96** |
| 11 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.71 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** |
| 13 | 0.09 | 0.20 | 0.31 | 0.40 | 0.49 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.12 | 0.29 | 0.44 | 0.57 | 0.67 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.26 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 883: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 7 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 9 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.66 | 0.75 | 0.79 | **0.82** | **0.92** | **0.96** |
| 11 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.71 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** |
| 13 | 0.09 | 0.20 | 0.31 | 0.40 | 0.49 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.12 | 0.29 | 0.44 | 0.57 | 0.67 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.26 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 884: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.53 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 885: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.53 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 886: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.46 | 0.57 | 0.67 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 11 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.40 | 0.44 | 0.49 | 0.54 | 0.58 | 0.62 | 0.65 | 0.69 | 0.72 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.15 | 0.35 | 0.52 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 887: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.46 | 0.57 | 0.67 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 11 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.40 | 0.44 | 0.49 | 0.54 | 0.58 | 0.62 | 0.65 | 0.69 | 0.72 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.15 | 0.35 | 0.52 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 888: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 889: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 890: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 891: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 892: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 893: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 894: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 895: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 896: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 897: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 898: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 899: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 900: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.36 | 0.40 | 0.48 | 0.52 | 0.55 | 0.68 | 0.77 |
| 7 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 9 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.50 | 0.72 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.52 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 901: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.46 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 902: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 903: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 7 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.90** |
| 11 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.44 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 15 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 904: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.38 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 905: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | 0.79 |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 906: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | **0.80** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 907: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.50 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.71 | **0.83** | **0.90** |
| 9 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 11 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 908: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 5 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.51 | 0.53 | 0.59 | 0.65 | 0.75 | 0.78 | **0.82** | **0.91** | **0.96** |
| 7 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.34 | 0.77 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 909: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.55 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 910: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.66 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 911: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.59 | 0.63 | 0.66 | 0.79 | **0.87** |
| 9 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.64 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.91** | **0.94** | **0.98** | **0.99** |
| 11 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.39 | 0.58 | 0.72 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 912: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.33 | 0.40 | 0.43 | 0.47 | 0.58 | 0.68 |
| 11 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.90** |
| 13 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.84** | **0.88** | **0.90** | **0.96** | **0.99** |
| 15 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.67 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 17 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.32 | 0.49 | 0.63 | 0.73 | **0.82** | **0.87** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 913: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.33 | 0.40 | 0.43 | 0.47 | 0.58 | 0.68 |
| 11 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.90** |
| 13 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.84** | **0.88** | **0.90** | **0.96** | **0.99** |
| 15 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.67 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 17 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.32 | 0.49 | 0.63 | 0.73 | **0.82** | **0.87** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 914: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.26 | 0.33 | 0.40 |
| 11 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.24 | 0.24 | 0.28 | 0.31 | 0.37 | 0.40 | 0.43 | 0.54 | 0.64 |
| 13 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.63 | 0.76 | **0.84** |
| 15 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.59 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 17 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 19 | 0.08 | 0.15 | 0.22 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.43 | 0.55 | 0.66 | 0.75 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.26 | 0.62 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 915: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 5 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 7 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 9 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.26 | 0.33 | 0.40 |
| 11 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.24 | 0.24 | 0.28 | 0.31 | 0.37 | 0.40 | 0.43 | 0.54 | 0.64 |
| 13 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.63 | 0.76 | **0.84** |
| 15 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.59 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 17 | 0.06 | 0.12 | 0.17 | 0.22 | 0.27 | 0.31 | 0.36 | 0.41 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.64 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 19 | 0.08 | 0.15 | 0.22 | 0.28 | 0.35 | 0.41 | 0.47 | 0.53 | 0.58 | 0.63 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.82** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 21 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 23 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.12 | 0.28 | 0.43 | 0.55 | 0.66 | 0.75 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.17 | 0.40 | 0.60 | 0.75 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.18 | 0.44 | 0.64 | 0.79 | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.26 | 0.62 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 916: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 7 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.47 | 0.51 | 0.63 | 0.72 |
| 9 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.23 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.65 | 0.75 | 0.79 | **0.82** | **0.92** | **0.96** |
| 11 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.59 | 0.64 | 0.68 | 0.71 | 0.74 | 0.77 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** |
| 13 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.72 | **0.86** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 917: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 7 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.47 | 0.51 | 0.63 | 0.72 |
| 9 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.23 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.65 | 0.75 | 0.79 | **0.82** | **0.92** | **0.96** |
| 11 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.59 | 0.64 | 0.68 | 0.71 | 0.74 | 0.77 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** |
| 13 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.72 | **0.86** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 918: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 | 0.13 | 0.16 | 0.19 |
| 7 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 9 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.30 | 0.30 | 0.35 | 0.39 | 0.46 | 0.50 | 0.53 | 0.66 | 0.75 |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.48 | 0.50 | 0.56 | 0.62 | 0.71 | 0.75 | 0.79 | **0.89** | **0.95** |
| 13 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.59 | 0.63 | 0.66 | 0.69 | 0.71 | 0.77 | **0.83** | **0.90** | **0.93** | **0.94** | **0.98** | **1.00** |
| 15 | 0.08 | 0.16 | 0.25 | 0.32 | 0.40 | 0.47 | 0.54 | 0.60 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.70 | 0.76 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.13 | 0.29 | 0.44 | 0.57 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 919: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 | 0.13 | 0.16 | 0.19 |
| 7 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.44 |
| 9 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.30 | 0.30 | 0.35 | 0.39 | 0.46 | 0.50 | 0.53 | 0.66 | 0.75 |
| 11 | 0.05 | 0.09 | 0.12 | 0.15 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.48 | 0.50 | 0.56 | 0.62 | 0.71 | 0.75 | 0.79 | **0.89** | **0.95** |
| 13 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.59 | 0.63 | 0.66 | 0.69 | 0.71 | 0.77 | **0.83** | **0.90** | **0.93** | **0.94** | **0.98** | **1.00** |
| 15 | 0.08 | 0.16 | 0.25 | 0.32 | 0.40 | 0.47 | 0.54 | 0.60 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 17 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.70 | 0.76 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.13 | 0.29 | 0.44 | 0.57 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.15 | 0.37 | 0.56 | 0.70 | **0.81** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.19 | 0.46 | 0.67 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 920: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 11 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.58 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.35 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.19 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 921: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 | 0.46 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.87** | **0.93** |
| 11 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 | 0.49 | 0.53 | 0.58 | 0.61 | 0.65 | 0.68 | 0.71 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.35 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.19 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 922: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 7 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.39 |
| 9 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.45 | 0.48 | 0.59 | 0.69 |
| 11 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.56 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 13 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 15 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.75 | 0.79 | **0.81** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 17 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.63 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.89** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.21 | 0.51 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 923: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 7 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.33 | 0.39 |
| 9 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.27 | 0.31 | 0.34 | 0.41 | 0.45 | 0.48 | 0.59 | 0.69 |
| 11 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.22 | 0.25 | 0.28 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.43 | 0.44 | 0.50 | 0.56 | 0.65 | 0.69 | 0.73 | **0.84** | **0.91** |
| 13 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.86** | **0.89** | **0.91** | **0.97** | **0.99** |
| 15 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.75 | 0.79 | **0.81** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 17 | 0.09 | 0.20 | 0.30 | 0.39 | 0.48 | 0.56 | 0.63 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.33 | 0.50 | 0.64 | 0.75 | **0.83** | **0.89** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.21 | 0.51 | 0.72 | **0.85** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 924: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.64 | 0.69 | 0.72 | **0.84** | **0.91** |
| 5 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 925: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.64 | 0.69 | 0.72 | **0.84** | **0.91** |
| 5 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 926: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 927: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 928: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 929: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | n | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 930: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.32 | 0.34 | 0.36 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 5 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 931: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.32 | 0.34 | 0.36 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 5 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 932: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 933: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 934: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 935: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 936: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 3 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.58 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 5 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 937: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.45 | 0.49 | 0.52 | 0.64 | 0.74 |
| 5 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.64 | 0.68 | 0.73 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.15 | 0.36 | 0.54 | 0.69 | 0.79 | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 938: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 5 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.15 | 0.37 | 0.56 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 939: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 7 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 940: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 941: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 3 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.59 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 5 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 942: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.28 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.67 | 0.76 | **0.80** | **0.83** | **0.92** | **0.97** |
| 5 | 0.13 | 0.29 | 0.44 | 0.58 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.65 | **0.85** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 943: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.51 | 0.54 | 0.67 | 0.76 |
| 5 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.93** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 944: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 3 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 945: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 5 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.58 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 946: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.50 | 0.56 | 0.62 | 0.72 | 0.76 | 0.79 | **0.89** | **0.95** |
| 5 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| $g = h$ 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 947: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.36 | 0.43 | 0.47 | 0.50 | 0.62 | 0.72 |
| 5 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.14 | 0.35 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.62 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| $g = h$ 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 948: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.21 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.50 | 0.53 | 0.55 | 0.57 | 0.63 | 0.69 | 0.79 | **0.82** | **0.85** | **0.94** | **0.97** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 949: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.21 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.50 | 0.53 | 0.55 | 0.57 | 0.63 | 0.69 | 0.79 | **0.82** | **0.85** | **0.94** | **0.97** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 950: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | 0.79 |
| 5 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 951: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | 0.79 |
| 5 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.58 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 952: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 3 | 0.09 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 953: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 3 | 0.09 | 0.17 | 0.26 | 0.34 | 0.42 | 0.50 | 0.56 | 0.63 | 0.68 | 0.73 | 0.77 | **0.81** | **0.84** | **0.86** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 954: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 955: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 956: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 3 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.22 | 0.54 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 957: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 3 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.79 | **0.82** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.22 | 0.54 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 958: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.33 | 0.37 | 0.41 | 0.44 | 0.48 | 0.51 | 0.54 | 0.57 | 0.58 | 0.65 | 0.71 | **0.80** | **0.84** | **0.87** | **0.94** | **0.98** |
| 5 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 959: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.33 | 0.37 | 0.41 | 0.44 | 0.48 | 0.51 | 0.54 | 0.57 | 0.58 | 0.65 | 0.71 | **0.80** | **0.84** | **0.87** | **0.94** | **0.98** |
| 5 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.29 | 0.69 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 960: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.64 | 0.69 | 0.72 | **0.84** | **0.91** |
| 5 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 961: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.64 | 0.69 | 0.72 | **0.84** | **0.91** |
| 5 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 962: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 963: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 964: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 965: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 966: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.32 | 0.34 | 0.36 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 5 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 967: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.32 | 0.34 | 0.36 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 5 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 968: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 969: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 970: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 971: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 972: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 3 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.58 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 5 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 973: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 3 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.58 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 5 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 974: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 5 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.15 | 0.37 | 0.56 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 975: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 5 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.15 | 0.37 | 0.56 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 976: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 977: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 978: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.28 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.67 | 0.76 | **0.80** | **0.83** | **0.92** | **0.97** |
| 5 | 0.13 | 0.29 | 0.44 | 0.58 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.65 | **0.85** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 979: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.28 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.67 | 0.76 | **0.80** | **0.83** | **0.92** | **0.97** |
| 5 | 0.13 | 0.29 | 0.44 | 0.58 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.65 | **0.85** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 980: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 3 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 981: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 3 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 982: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.50 | 0.56 | 0.62 | 0.72 | 0.76 | 0.79 | **0.89** | **0.95** |
| 5 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| $g = h$ 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 983: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.50 | 0.56 | 0.62 | 0.72 | 0.76 | 0.79 | **0.89** | **0.95** |
| 5 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| $g = h$ 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 984: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.41 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.73 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 985: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.41 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.73 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 986: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.28 | 0.31 | 0.33 | 0.42 | 0.50 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 7 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 987: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.28 | 0.31 | 0.33 | 0.42 | 0.50 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 7 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 988: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 3 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.63 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 5 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 989: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 3 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.63 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 5 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 990: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.38 | 0.43 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 5 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.34 | 0.77 | **0.94** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 991: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.38 | 0.43 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 5 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.34 | 0.77 | **0.94** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 992: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.21 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.53 | 0.55 | 0.57 | 0.63 | 0.69 | 0.79 | **0.82** | **0.85** | **0.94** | **0.97** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 993: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.21 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.53 | 0.55 | 0.57 | 0.63 | 0.69 | 0.79 | **0.82** | **0.85** | **0.94** | **0.97** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 994: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.33 | 0.38 | 0.42 | 0.51 | 0.55 | 0.58 | 0.71 | **0.80** |
| 5 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 995: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.33 | 0.38 | 0.42 | 0.51 | 0.55 | 0.58 | 0.71 | **0.80** |
| 5 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 996: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.64 | 0.69 | 0.72 | **0.84** | **0.91** |
| 5 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 997: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.64 | 0.69 | 0.72 | **0.84** | **0.91** |
| 5 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 998: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 999: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1000: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1001: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1002: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.32 | 0.34 | 0.36 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 5 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1003: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.32 | 0.34 | 0.36 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 5 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1004: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1005: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1006: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1007: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1008: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 3 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.58 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 5 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1009: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.45 | 0.49 | 0.52 | 0.64 | 0.74 |
| 5 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.64 | 0.68 | 0.73 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.15 | 0.36 | 0.54 | 0.69 | 0.79 | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1010: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 5 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.15 | 0.37 | 0.56 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1011: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 7 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1012: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1013: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 3 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.59 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 5 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1014: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.28 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.67 | 0.76 | **0.80** | **0.83** | **0.92** | **0.97** |
| 5 | 0.13 | 0.29 | 0.44 | 0.58 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.65 | **0.85** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1015: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.51 | 0.54 | 0.67 | 0.76 |
| 5 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.93** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1016: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 3 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1017: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 5 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.58 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1018: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.50 | 0.56 | 0.62 | 0.72 | 0.76 | 0.79 | **0.89** | **0.95** |
| 5 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1019: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.36 | 0.43 | 0.47 | 0.50 | 0.62 | 0.72 |
| 5 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.14 | 0.35 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.62 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1020: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.41 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.73 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1021: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.41 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.73 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1022: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.28 | 0.31 | 0.33 | 0.42 | 0.50 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 7 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1023: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.28 | 0.31 | 0.33 | 0.42 | 0.50 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 7 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1024: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 3 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.63 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 5 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1025: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 3 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.63 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 5 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1026: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.38 | 0.43 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 5 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.34 | 0.77 | **0.94** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1027: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.38 | 0.43 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 5 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.34 | 0.77 | **0.94** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1028: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.21 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.53 | 0.55 | 0.57 | 0.63 | 0.69 | 0.79 | **0.82** | **0.85** | **0.94** | **0.97** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1029: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.21 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.53 | 0.55 | 0.57 | 0.63 | 0.69 | 0.79 | **0.82** | **0.85** | **0.94** | **0.97** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1030: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.33 | 0.38 | 0.42 | 0.51 | 0.55 | 0.58 | 0.71 | **0.80** |
| 5 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1031: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.33 | 0.38 | 0.42 | 0.51 | 0.55 | 0.58 | 0.71 | **0.80** |
| 5 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1032: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.64 | 0.69 | 0.72 | **0.84** | **0.91** |
| 5 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1033: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.64 | 0.69 | 0.72 | **0.84** | **0.91** |
| 5 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1034: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1035: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1036: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1037: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1038: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.32 | 0.34 | 0.36 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 5 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1039: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.32 | 0.34 | 0.36 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 5 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1040: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1041: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1042: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1043: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1044: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.45 | 0.49 | 0.52 | 0.64 | 0.74 |
| 5 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.64 | 0.68 | 0.73 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.15 | 0.36 | 0.54 | 0.69 | 0.79 | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1045: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.45 | 0.49 | 0.52 | 0.64 | 0.74 |
| 5 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.64 | 0.68 | 0.73 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.15 | 0.36 | 0.54 | 0.69 | 0.79 | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1046: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 7 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1047: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 7 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1048: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 3 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.59 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 5 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1049: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 3 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.59 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 5 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1050: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.51 | 0.54 | 0.67 | 0.76 |
| 5 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.93** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1051: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.51 | 0.54 | 0.67 | 0.76 |
| 5 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.93** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1052: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 5 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.58 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 1053: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 5 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.58 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 1054: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.36 | 0.43 | 0.47 | 0.50 | 0.62 | 0.72 |
| 5 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.14 | 0.35 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.62 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1055: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.36 | 0.43 | 0.47 | 0.50 | 0.62 | 0.72 |
| 5 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.14 | 0.35 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.62 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1056: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.41 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.73 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1057: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.41 | 0.50 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.73 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1058: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.28 | 0.31 | 0.33 | 0.42 | 0.50 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 7 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1059: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.28 | 0.31 | 0.33 | 0.42 | 0.50 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.59 | 0.62 | 0.64 | 0.71 | 0.76 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 7 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.67 | **0.87** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1060: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 3 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.63 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 5 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1061: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 3 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.63 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 5 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1062: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.38 | 0.43 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 5 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.34 | 0.77 | **0.94** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1063: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.38 | 0.43 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 5 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.34 | 0.77 | **0.94** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1064: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.21 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.53 | 0.55 | 0.57 | 0.63 | 0.69 | 0.79 | **0.82** | **0.85** | **0.94** | **0.97** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1065: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.21 | 0.25 | 0.29 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.53 | 0.55 | 0.57 | 0.63 | 0.69 | 0.79 | **0.82** | **0.85** | **0.94** | **0.97** |
| 5 | 0.13 | 0.31 | 0.47 | 0.60 | 0.71 | 0.79 | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.53 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1066: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.33 | 0.38 | 0.42 | 0.51 | 0.55 | 0.58 | 0.71 | **0.80** |
| 5 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1067: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.33 | 0.38 | 0.42 | 0.51 | 0.55 | 0.58 | 0.71 | **0.80** |
| 5 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.65 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1068: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.64 | 0.69 | 0.72 | **0.84** | **0.91** |
| 5 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1069: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.64 | 0.69 | 0.72 | **0.84** | **0.91** |
| 5 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1070: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1071: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1072: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1073: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1074: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.32 | 0.34 | 0.36 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 5 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1075: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.32 | 0.34 | 0.36 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 5 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1076: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1077: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1078: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1079: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1080: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 3 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.58 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 5 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1081: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 3 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.58 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 5 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1082: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 5 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.15 | 0.37 | 0.56 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1083: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 5 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.15 | 0.37 | 0.56 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1084: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1085: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1086: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.28 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.67 | 0.76 | **0.80** | **0.83** | **0.92** | **0.97** |
| 5 | 0.13 | 0.29 | 0.44 | 0.58 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.65 | **0.85** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1087: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.28 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.67 | 0.76 | **0.80** | **0.83** | **0.92** | **0.97** |
| 5 | 0.13 | 0.29 | 0.44 | 0.58 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.65 | **0.85** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1088: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 3 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1089: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 3 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1090: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.50 | 0.56 | 0.62 | 0.72 | 0.76 | 0.79 | **0.89** | **0.95** |
| 5 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1091: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.50 | 0.56 | 0.62 | 0.72 | 0.76 | 0.79 | **0.89** | **0.95** |
| 5 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1092: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.41 | 0.50 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.33 | 0.37 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.59 | 0.62 | 0.63 | 0.70 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 7 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.59 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1093: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.41 | 0.50 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.33 | 0.37 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.59 | 0.62 | 0.63 | 0.70 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 7 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.59 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1094: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.24 | 0.28 |
| 5 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 7 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 9 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.34 | 0.77 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1095: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.24 | 0.28 |
| 5 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 7 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 9 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.34 | 0.77 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1096: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 5 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1097: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 5 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1098: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.38 | 0.47 | 0.56 |
| 5 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.63 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 7 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1099: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.38 | 0.47 | 0.56 |
| 5 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.63 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 7 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1100: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.41 | 0.49 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1101: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| $g=h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.41 | 0.49 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1102: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.51 |
| 5 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 7 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.43 | 0.63 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1103: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.51 |
| 5 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 7 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.43 | 0.63 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 816: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 817: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 818: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 819: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 820: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 821: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 822: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 823: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 824: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 825: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 826: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 827: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 828: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.31 | 0.32 | 0.36 | 0.40 | 0.48 | 0.52 | 0.55 | 0.68 | 0.77 |
| 7 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 9 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.72 | 0.77 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.50 | 0.72 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.52 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 829: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.46 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 830: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 831: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 7 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.90** |
| 11 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.44 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 15 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 832: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.17 | 0.19 | 0.21 | 0.25 | 0.27 | 0.29 | 0.37 | 0.45 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 7 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.38 | 0.56 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 833: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | 0.79 |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 834: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | $n$ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | **0.80** |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 835: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | $n$ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.50 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.71 | **0.83** | **0.90** |
| 9 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 11 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 836: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 5 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.27 | 0.30 | 0.33 | 0.36 | 0.40 | 0.43 | 0.46 | 0.49 | 0.51 | 0.53 | 0.59 | 0.65 | 0.75 | 0.78 | **0.82** | **0.91** | **0.96** |
| 7 | 0.09 | 0.18 | 0.28 | 0.37 | 0.45 | 0.53 | 0.60 | 0.66 | 0.72 | 0.76 | **0.80** | **0.84** | **0.87** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.23 | 0.55 | 0.77 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.34 | 0.77 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 837: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.55 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 838: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.62 | 0.65 | 0.66 | 0.73 | 0.79 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.94** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.14 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 839: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.59 | 0.63 | 0.66 | 0.79 | **0.87** |
| 9 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.64 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.91** | **0.94** | **0.98** | **0.99** |
| 11 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.39 | 0.58 | 0.72 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 840: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.56 | 0.65 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.86** | **0.93** |
| 11 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 841: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.56 | 0.65 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.86** | **0.93** |
| 11 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 842: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.33 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 11 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.91** |
| 13 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.84** | **0.88** | **0.90** | **0.96** | **0.99** |
| 15 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 17 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 843: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.33 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 11 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.91** |
| 13 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.84** | **0.88** | **0.90** | **0.96** | **0.99** |
| 15 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 17 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 844: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.39 | 0.50 | 0.59 |
| 7 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.49 | 0.51 | 0.57 | 0.63 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 9 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.58 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 845: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.39 | 0.50 | 0.59 |
| 7 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.49 | 0.51 | 0.57 | 0.63 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 9 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.58 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 846: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 7 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 9 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.66 | 0.75 | 0.79 | **0.82** | **0.92** | **0.96** |
| 11 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.71 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** |
| 13 | 0.09 | 0.20 | 0.31 | 0.40 | 0.49 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.12 | 0.29 | 0.44 | 0.57 | 0.67 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.26 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 847: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 7 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 9 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.66 | 0.75 | 0.79 | **0.82** | **0.92** | **0.96** |
| 11 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.71 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** |
| 13 | 0.09 | 0.20 | 0.31 | 0.40 | 0.49 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.12 | 0.29 | 0.44 | 0.57 | 0.67 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.26 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 848: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.53 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 849: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.53 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 850: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.46 | 0.57 | 0.67 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 11 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.40 | 0.44 | 0.49 | 0.54 | 0.58 | 0.62 | 0.65 | 0.69 | 0.72 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.15 | 0.35 | 0.52 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 851: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.46 | 0.57 | 0.67 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 11 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.40 | 0.44 | 0.49 | 0.54 | 0.58 | 0.62 | 0.65 | 0.69 | 0.72 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.15 | 0.35 | 0.52 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 852: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 853: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.34 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 7 | 0.06 | 0.10 | 0.14 | 0.19 | 0.23 | 0.27 | 0.31 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.60 | 0.66 | 0.72 | **0.81** | **0.85** | **0.88** | **0.95** | **0.98** |
| 9 | 0.08 | 0.17 | 0.26 | 0.34 | 0.42 | 0.49 | 0.56 | 0.62 | 0.68 | 0.73 | 0.77 | **0.80** | **0.84** | **0.86** | **0.89** | **0.90** | **0.93** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 11 | 0.12 | 0.28 | 0.43 | 0.56 | 0.66 | 0.75 | **0.82** | **0.87** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.42 | 0.63 | 0.77 | **0.86** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 854: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 855: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.12 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 | 0.17 | 0.19 | 0.23 | 0.25 | 0.27 | 0.34 | 0.41 |
| 7 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.35 | 0.39 | 0.44 | 0.52 | 0.56 | 0.60 | 0.72 | **0.81** |
| 9 | 0.06 | 0.11 | 0.15 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.51 | 0.55 | 0.58 | 0.61 | 0.62 | 0.69 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 11 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.53 | 0.59 | 0.64 | 0.69 | 0.73 | 0.77 | **0.80** | **0.83** | **0.86** | **0.87** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 13 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.14 | 0.34 | 0.52 | 0.66 | 0.77 | **0.84** | **0.90** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.19 | 0.46 | 0.68 | **0.81** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 856: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 857: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.23 | 0.28 | 0.34 |
| 5 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.25 | 0.28 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.44 | 0.45 | 0.51 | 0.56 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 7 | 0.08 | 0.16 | 0.24 | 0.31 | 0.38 | 0.45 | 0.52 | 0.57 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.29 | 0.44 | 0.57 | 0.68 | 0.76 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.19 | 0.47 | 0.69 | **0.82** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 858: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 859: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.13 | 0.17 | 0.20 |
| 5 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.25 | 0.26 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.57 | 0.66 |
| 7 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.40 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.58 | 0.64 | 0.70 | 0.79 | **0.83** | **0.86** | **0.94** | **0.98** |
| 9 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.54 | 0.60 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 11 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.17 | 0.41 | 0.61 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.53 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 860: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 861: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.41 | 0.42 | 0.48 | 0.53 | 0.62 | 0.66 | 0.70 | **0.82** | **0.89** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.64 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 862: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 863: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.18 |
| 5 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.30 | 0.36 | 0.39 | 0.42 | 0.53 | 0.62 |
| 7 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.66 | 0.76 | **0.80** | **0.83** | **0.92** | **0.96** |
| 9 | 0.08 | 0.16 | 0.23 | 0.31 | 0.38 | 0.45 | 0.51 | 0.57 | 0.62 | 0.67 | 0.71 | 0.75 | 0.78 | **0.81** | **0.84** | **0.85** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 11 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.22 | 0.53 | 0.75 | **0.88** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.50 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 864: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.46 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 865: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 7 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.18 | 0.21 | 0.23 | 0.26 | 0.28 | 0.31 | 0.33 | 0.35 | 0.38 | 0.40 | 0.41 | 0.47 | 0.52 | 0.61 | 0.65 | 0.69 | **0.81** | **0.89** |
| 9 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 11 | 0.09 | 0.19 | 0.29 | 0.38 | 0.46 | 0.54 | 0.61 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.22 | 0.55 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.29 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 866: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 7 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.90** |
| 11 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.44 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 15 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 867: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 5 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 7 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.23 | 0.26 | 0.29 | 0.35 | 0.38 | 0.41 | 0.52 | 0.61 |
| 9 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.90** |
| 11 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.44 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 13 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 15 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.17 | 0.41 | 0.61 | 0.76 | **0.85** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.27 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 868: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | 0.79 |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 869: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 5 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.21 | 0.23 | 0.25 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.38 | 0.42 | 0.50 | 0.54 | 0.58 | 0.70 | 0.79 |
| 7 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.52 | 0.56 | 0.60 | 0.63 | 0.67 | 0.70 | 0.71 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.98** | **1.00** |
| 9 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.60 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.30 | 0.70 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 870: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.50 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.71 | **0.83** | **0.90** |
| 9 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 11 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 871: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.15 |
| 5 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.50 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.71 | **0.83** | **0.90** |
| 9 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 11 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.70 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.93** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.30 | 0.45 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.17 | 0.43 | 0.63 | 0.77 | **0.87** | **0.92** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 872: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.55 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 873: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.15 | 0.19 | 0.23 |
| 5 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.21 | 0.22 | 0.24 | 0.26 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.49 | 0.53 | 0.65 | 0.75 |
| 7 | 0.06 | 0.11 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.39 | 0.43 | 0.47 | 0.51 | 0.55 | 0.58 | 0.62 | 0.65 | 0.66 | 0.73 | 0.78 | **0.87** | **0.90** | **0.92** | **0.97** | **0.99** |
| 9 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.55 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.13 | 0.32 | 0.48 | 0.62 | 0.73 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.38 | **0.81** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.62 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 874: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.59 | 0.63 | 0.66 | 0.79 | **0.87** |
| 9 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.64 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.91** | **0.94** | **0.98** | **0.99** |
| 11 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.39 | 0.58 | 0.72 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 875: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.14 |
| 5 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 7 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.17 | 0.20 | 0.22 | 0.24 | 0.27 | 0.29 | 0.31 | 0.34 | 0.36 | 0.38 | 0.39 | 0.44 | 0.49 | 0.59 | 0.63 | 0.66 | 0.79 | **0.87** |
| 9 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.37 | 0.41 | 0.46 | 0.50 | 0.54 | 0.58 | 0.61 | 0.64 | 0.68 | 0.69 | 0.76 | **0.81** | **0.89** | **0.91** | **0.94** | **0.98** | **0.99** |
| 11 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.71 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 13 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.16 | 0.39 | 0.58 | 0.72 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.21 | 0.52 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.28 | 0.66 | **0.87** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.36 | 0.79 | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 876: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.56 | 0.65 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.86** | **0.93** |
| 11 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 877: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.28 | 0.32 | 0.38 | 0.41 | 0.44 | 0.56 | 0.65 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.20 | 0.23 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.40 | 0.43 | 0.45 | 0.47 | 0.53 | 0.58 | 0.68 | 0.72 | 0.76 | **0.86** | **0.93** |
| 11 | 0.07 | 0.12 | 0.18 | 0.23 | 0.28 | 0.34 | 0.38 | 0.43 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.67 | 0.70 | 0.72 | 0.78 | **0.83** | **0.90** | **0.93** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.74 | 0.78 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.81** | **0.86** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.23 | 0.56 | 0.78 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 878: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.33 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 11 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.91** |
| 13 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.84** | **0.88** | **0.90** | **0.96** | **0.99** |
| 15 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 17 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 879: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 5 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 7 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 9 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.26 | 0.30 | 0.33 | 0.40 | 0.44 | 0.47 | 0.58 | 0.68 |
| 11 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.32 | 0.35 | 0.37 | 0.40 | 0.42 | 0.43 | 0.49 | 0.54 | 0.64 | 0.68 | 0.72 | **0.83** | **0.91** |
| 13 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.63 | 0.70 | 0.76 | **0.84** | **0.88** | **0.90** | **0.96** | **0.99** |
| 15 | 0.08 | 0.15 | 0.21 | 0.28 | 0.35 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.67 | 0.71 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 17 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.74 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.11 | 0.25 | 0.38 | 0.50 | 0.61 | 0.69 | 0.76 | **0.82** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.14 | 0.32 | 0.49 | 0.63 | 0.74 | **0.82** | **0.88** | **0.92** | **0.95** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.17 | 0.40 | 0.60 | 0.74 | **0.84** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.24 | 0.59 | **0.80** | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 880: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.39 | 0.50 | 0.59 |
| 7 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.49 | 0.51 | 0.57 | 0.63 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 9 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.58 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 881: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.39 | 0.50 | 0.59 |
| 7 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.26 | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 | 0.44 | 0.47 | 0.49 | 0.51 | 0.57 | 0.63 | 0.72 | 0.76 | **0.80** | **0.90** | **0.95** |
| 9 | 0.08 | 0.15 | 0.22 | 0.29 | 0.35 | 0.42 | 0.48 | 0.53 | 0.58 | 0.63 | 0.68 | 0.72 | 0.75 | 0.78 | **0.81** | **0.82** | **0.88** | **0.92** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.11 | 0.23 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.20 | 0.50 | 0.72 | **0.85** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 882: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 7 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 9 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.66 | 0.75 | 0.79 | **0.82** | **0.92** | **0.96** |
| 11 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.71 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** |
| 13 | 0.09 | 0.20 | 0.31 | 0.40 | 0.49 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.12 | 0.29 | 0.44 | 0.57 | 0.67 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.26 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 883: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 5 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 7 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.26 | 0.28 | 0.29 | 0.33 | 0.37 | 0.44 | 0.48 | 0.51 | 0.63 | 0.73 |
| 9 | 0.06 | 0.09 | 0.13 | 0.17 | 0.20 | 0.24 | 0.27 | 0.30 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.52 | 0.53 | 0.60 | 0.66 | 0.75 | 0.79 | **0.82** | **0.92** | **0.96** |
| 11 | 0.07 | 0.14 | 0.20 | 0.27 | 0.33 | 0.39 | 0.44 | 0.50 | 0.55 | 0.60 | 0.64 | 0.68 | 0.71 | 0.75 | 0.78 | 0.79 | **0.85** | **0.89** | **0.95** | **0.96** | **0.97** | **0.99** | **1.00** |
| 13 | 0.09 | 0.20 | 0.31 | 0.40 | 0.49 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.84** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.12 | 0.29 | 0.44 | 0.57 | 0.67 | 0.76 | **0.83** | **0.88** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.26 | 0.64 | **0.85** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 884: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.53 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 885: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 5 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.25 | 0.30 | 0.33 | 0.35 | 0.44 | 0.53 |
| 7 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.20 | 0.23 | 0.26 | 0.28 | 0.31 | 0.34 | 0.37 | 0.39 | 0.42 | 0.44 | 0.45 | 0.51 | 0.57 | 0.66 | 0.70 | 0.74 | **0.85** | **0.92** |
| 9 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.53 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 11 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.13 | 0.31 | 0.48 | 0.62 | 0.72 | **0.81** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.33 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.42 | **0.86** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 886: Power Table for $\delta_{1101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.46 | 0.57 | 0.67 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 11 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.40 | 0.44 | 0.49 | 0.54 | 0.58 | 0.62 | 0.65 | 0.69 | 0.72 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.15 | 0.35 | 0.52 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 887: Power Table for $\delta_{1011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.10

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| 3 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 5 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 7 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 | 0.24 | 0.25 | 0.26 | 0.29 | 0.33 | 0.39 | 0.42 | 0.46 | 0.57 | 0.67 |
| 9 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.59 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 11 | 0.07 | 0.13 | 0.18 | 0.24 | 0.29 | 0.34 | 0.40 | 0.44 | 0.49 | 0.54 | 0.58 | 0.62 | 0.65 | 0.69 | 0.72 | 0.73 | 0.79 | **0.84** | **0.91** | **0.94** | **0.95** | **0.99** | **1.00** |
| 13 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.52 | 0.59 | 0.65 | 0.70 | 0.75 | 0.79 | **0.83** | **0.86** | **0.88** | **0.90** | **0.91** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 15 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.90** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.15 | 0.35 | 0.52 | 0.67 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.24 | 0.57 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.30 | 0.69 | **0.89** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1176: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.64 | 0.69 | 0.72 | **0.84** | **0.91** |
| 5 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1177: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.64 | 0.69 | 0.72 | **0.84** | **0.91** |
| 5 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1178: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1179: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1180: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1181: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1182: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.32 | 0.34 | 0.36 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 5 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1183: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.32 | 0.34 | 0.36 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 5 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1184: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1185: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1186: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1187: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1188: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 3 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.58 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 5 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1189: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.04 | 0.07 | 0.08 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.25 | 0.27 | 0.29 | 0.30 | 0.34 | 0.38 | 0.45 | 0.49 | 0.52 | 0.64 | 0.74 |
| 5 | 0.08 | 0.16 | 0.24 | 0.32 | 0.39 | 0.46 | 0.52 | 0.58 | 0.64 | 0.68 | 0.73 | 0.76 | **0.80** | **0.83** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.15 | 0.36 | 0.54 | 0.69 | 0.79 | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.65 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1190: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 5 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.15 | 0.37 | 0.56 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1191: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.20 | 0.22 | 0.26 | 0.28 | 0.30 | 0.38 | 0.46 |
| 5 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.42 | 0.45 | 0.49 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 7 | 0.10 | 0.21 | 0.32 | 0.42 | 0.51 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1192: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1193: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 3 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.59 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 5 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.87** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1194: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.28 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.67 | 0.76 | **0.80** | **0.83** | **0.92** | **0.97** |
| 5 | 0.13 | 0.29 | 0.44 | 0.58 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.65 | **0.85** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1195: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.12 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.35 | 0.39 | 0.47 | 0.51 | 0.54 | 0.67 | 0.76 |
| 5 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.66 | 0.71 | 0.75 | 0.79 | **0.82** | **0.85** | **0.87** | **0.88** | **0.93** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1196: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 3 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 1197: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.09 | 0.10 |
| 3 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.41 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.69 | 0.73 | 0.77 | **0.88** | **0.94** |
| 5 | 0.11 | 0.25 | 0.39 | 0.51 | 0.61 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.24 | 0.58 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.69 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 1198: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.50 | 0.56 | 0.62 | 0.72 | 0.76 | 0.79 | **0.89** | **0.95** |
| 5 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1199: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.15 | 0.16 | 0.18 | 0.20 | 0.21 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.32 | 0.36 | 0.43 | 0.47 | 0.50 | 0.62 | 0.72 |
| 5 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 7 | 0.14 | 0.35 | 0.52 | 0.66 | 0.77 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.26 | 0.62 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1200: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.23 | 0.28 |
| 5 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.53 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 9 | 0.11 | 0.24 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.24 | 0.58 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1201: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.19 | 0.23 | 0.28 |
| 5 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.19 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 7 | 0.07 | 0.13 | 0.19 | 0.25 | 0.31 | 0.37 | 0.42 | 0.48 | 0.53 | 0.57 | 0.61 | 0.65 | 0.69 | 0.72 | 0.75 | 0.77 | **0.83** | **0.87** | **0.93** | **0.95** | **0.97** | **0.99** | **1.00** |
| 9 | 0.11 | 0.24 | 0.36 | 0.47 | 0.57 | 0.66 | 0.73 | 0.79 | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.16 | 0.39 | 0.58 | 0.73 | **0.83** | **0.89** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.24 | 0.58 | 0.79 | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.72 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1202: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g=h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.16 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 7 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 9 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.76 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.10 | 0.22 | 0.34 | 0.45 | 0.54 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1203: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g=h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 |
| 3 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.16 |
| 5 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.37 | 0.47 | 0.56 |
| 7 | 0.05 | 0.09 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.44 | 0.47 | 0.48 | 0.54 | 0.60 | 0.70 | 0.74 | 0.77 | **0.88** | **0.94** |
| 9 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.76 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 11 | 0.10 | 0.22 | 0.34 | 0.45 | 0.54 | 0.63 | 0.70 | 0.76 | **0.81** | **0.85** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.14 | 0.34 | 0.51 | 0.65 | 0.76 | **0.84** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.19 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.26 | 0.63 | **0.84** | **0.94** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1204: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.55 |
| 5 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 7 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.31 | 0.72 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1205: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.23 | 0.26 | 0.31 | 0.34 | 0.36 | 0.46 | 0.55 |
| 5 | 0.07 | 0.12 | 0.17 | 0.22 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 | 0.50 | 0.54 | 0.57 | 0.61 | 0.64 | 0.67 | 0.69 | 0.75 | **0.81** | **0.89** | **0.91** | **0.93** | **0.98** | **0.99** |
| 7 | 0.11 | 0.25 | 0.38 | 0.50 | 0.60 | 0.69 | 0.76 | **0.82** | **0.86** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.31 | 0.72 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1206: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.70 | **0.82** | **0.90** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.45 | 0.65 | **0.80** | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1207: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.20 | 0.21 | 0.27 | 0.32 |
| 5 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.31 | 0.34 | 0.36 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.70 | **0.82** | **0.90** |
| 7 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.43 | 0.49 | 0.54 | 0.60 | 0.64 | 0.69 | 0.73 | 0.76 | 0.79 | **0.82** | **0.83** | **0.89** | **0.92** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 9 | 0.12 | 0.27 | 0.41 | 0.54 | 0.65 | 0.73 | **0.80** | **0.85** | **0.89** | **0.92** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.18 | 0.45 | 0.65 | **0.80** | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.27 | 0.65 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1208: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.41 | 0.49 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.33 | 0.37 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.59 | 0.62 | 0.63 | 0.70 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 7 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.59 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1209: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.41 | 0.49 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.33 | 0.37 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.59 | 0.62 | 0.63 | 0.70 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 7 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.59 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1210: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 5 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.85** |
| 7 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 9 | 0.11 | 0.24 | 0.37 | 0.49 | 0.59 | 0.67 | 0.75 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1211: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.17 | 0.18 | 0.19 | 0.24 | 0.29 |
| 5 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.65 | 0.77 | **0.85** |
| 7 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.54 | 0.58 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | 0.78 | **0.84** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 9 | 0.11 | 0.24 | 0.37 | 0.49 | 0.59 | 0.67 | 0.75 | **0.80** | **0.85** | **0.89** | **0.91** | **0.94** | **0.95** | **0.97** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.24 | 0.59 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.74 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1212: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1213: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1214: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1215: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1216: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1217: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1218: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1219: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1220: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.30 | 0.36 |
| 3 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1221: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.30 | 0.36 |
| 3 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1222: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1223: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1224: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.32 |
| 3 | 0.12 | 0.26 | 0.40 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1225: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.18 |
| 3 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1226: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.67 | 0.71 | 0.76 | 0.79 | **0.83** | **0.85** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1227: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 5 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.31 | 0.72 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1228: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1229: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 3 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1230: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 3 | 0.12 | 0.27 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1231: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.45 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1232: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.26 | 0.28 | 0.30 | 0.38 | 0.45 |
| 3 | 0.16 | 0.38 | 0.57 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1233: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.43 | 0.53 | 0.61 | 0.69 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1234: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1235: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 5 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1236: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1237: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1238: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.19 | 0.22 |
| 3 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.27 | 0.64 | **0.85** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1239: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.19 | 0.22 |
| 3 | 0.09 | 0.19 | 0.29 | 0.38 | 0.47 | 0.55 | 0.62 | 0.68 | 0.73 | 0.78 | **0.82** | **0.85** | **0.88** | **0.90** | **0.92** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.27 | 0.64 | **0.85** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1240: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.31 | 0.37 | 0.40 | 0.43 | 0.54 | 0.63 |
| 3 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1241: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.22 | 0.23 | 0.24 | 0.27 | 0.31 | 0.37 | 0.40 | 0.43 | 0.54 | 0.63 |
| 3 | 0.22 | 0.54 | 0.76 | **0.88** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1242: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 3 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1243: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.16 | 0.18 | 0.20 | 0.24 | 0.26 | 0.28 | 0.35 | 0.42 |
| 3 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1244: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.39 | 0.50 | 0.59 |
| 3 | 0.20 | 0.50 | 0.72 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1245: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.22 | 0.22 | 0.25 | 0.28 | 0.34 | 0.37 | 0.39 | 0.50 | 0.59 |
| 3 | 0.20 | 0.50 | 0.72 | **0.85** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1246: Power Table for $\delta_{0000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 3 | 0.14 | 0.32 | 0.49 | 0.63 | 0.73 | **0.82** | **0.87** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1247: Power Table for $\delta_{1000}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.16 | 0.18 | 0.22 | 0.23 | 0.25 | 0.32 | 0.38 |
| 3 | 0.14 | 0.32 | 0.49 | 0.63 | 0.73 | **0.82** | **0.87** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1248: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1249: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1250: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1251: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1252: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1253: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1254: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1255: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1256: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.30 | 0.36 |
| 3 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1257: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.30 | 0.36 |
| 3 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1258: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1259: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1260: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.32 |
| 3 | 0.12 | 0.26 | 0.40 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1261: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.32 |
| 3 | 0.12 | 0.26 | 0.40 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1262: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.67 | 0.71 | 0.76 | 0.79 | **0.83** | **0.85** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1263: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.67 | 0.71 | 0.76 | 0.79 | **0.83** | **0.85** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1264: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1265: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1266: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 3 | 0.12 | 0.27 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1267: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 3 | 0.12 | 0.27 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1268: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.26 | 0.28 | 0.30 | 0.38 | 0.45 |
| 3 | 0.16 | 0.38 | 0.57 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1269: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.26 | 0.28 | 0.30 | 0.38 | 0.45 |
| 3 | 0.16 | 0.38 | 0.57 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1270: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 1271: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 1272: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.14 | 0.18 | 0.21 |
| 3 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1273: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.14 | 0.18 | 0.21 |
| 3 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1274: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1275: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1276: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.22 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.47 | 0.61 | 0.71 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1277: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.22 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.47 | 0.61 | 0.71 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1278: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.28 | 0.67 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1279: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.28 | 0.67 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1280: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 3 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1281: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 3 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1282: Power Table for $\delta_{0100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 3 | 0.09 | 0.18 | 0.28 | 0.36 | 0.45 | 0.52 | 0.59 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1283: Power Table for $\delta_{0010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 3 | 0.09 | 0.18 | 0.28 | 0.36 | 0.45 | 0.52 | 0.59 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1284: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1285: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1286: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1287: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1288: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1289: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1290: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1291: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1292: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.30 | 0.36 |
| 3 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1293: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.30 | 0.36 |
| 3 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1294: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1295: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1296: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.32 |
| 3 | 0.12 | 0.26 | 0.40 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1297: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.18 |
| 3 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1298: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.67 | 0.71 | 0.76 | 0.79 | **0.83** | **0.85** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1299: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 5 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.31 | 0.72 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1300: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1301: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 3 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1302: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 3 | 0.12 | 0.27 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1303: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.45 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1304: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.26 | 0.28 | 0.30 | 0.38 | 0.45 |
| 3 | 0.16 | 0.38 | 0.57 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1305: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.43 | 0.53 | 0.61 | 0.69 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1306: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1307: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 5 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1308: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.14 | 0.18 | 0.21 |
| 3 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1309: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.14 | 0.18 | 0.21 |
| 3 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1310: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1311: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1312: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.22 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.47 | 0.61 | 0.71 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1313: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.22 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.47 | 0.61 | 0.71 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1314: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.28 | 0.67 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1315: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.28 | 0.67 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1316: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 3 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1317: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 3 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1318: Power Table for $\delta_{0001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 3 | 0.09 | 0.18 | 0.28 | 0.36 | 0.45 | 0.52 | 0.59 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1319: Power Table for $\delta_{1100}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 3 | 0.09 | 0.18 | 0.28 | 0.36 | 0.45 | 0.52 | 0.59 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1320: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1321: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1322: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1323: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1324: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1325: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1326: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1327: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1328: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.30 | 0.36 |
| 3 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1329: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.30 | 0.36 |
| 3 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1330: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1331: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1332: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.18 |
| 3 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1333: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.18 |
| 3 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1334: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 5 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.31 | 0.72 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1335: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 5 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.31 | 0.72 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1336: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 3 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1337: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 3 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1338: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.45 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1339: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.45 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1340: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.43 | 0.53 | 0.61 | 0.69 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1341: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.43 | 0.53 | 0.61 | 0.69 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1342: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 5 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1343: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 5 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1344: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.14 | 0.18 | 0.21 |
| 3 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1345: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.14 | 0.18 | 0.21 |
| 3 | 0.09 | 0.18 | 0.27 | 0.36 | 0.44 | 0.51 | 0.58 | 0.64 | 0.70 | 0.75 | 0.79 | **0.82** | **0.85** | **0.88** | **0.90** | **0.91** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.25 | 0.61 | **0.82** | **0.93** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1346: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1347: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.56 | 0.60 | 0.63 | 0.66 | 0.68 | 0.74 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.81** | **0.88** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1348: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.22 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.47 | 0.61 | 0.71 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1349: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.22 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.47 | 0.61 | 0.71 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.44 | **0.88** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1350: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.28 | 0.67 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1351: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.28 | 0.67 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1352: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 3 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1353: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.13 | 0.15 | 0.16 | 0.19 | 0.21 | 0.22 | 0.28 | 0.34 |
| 3 | 0.12 | 0.28 | 0.43 | 0.56 | 0.67 | 0.76 | **0.82** | **0.87** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.41 | **0.85** | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1354: Power Table for $\delta_{1010}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 3 | 0.09 | 0.18 | 0.28 | 0.36 | 0.45 | 0.52 | 0.59 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1355: Power Table for $\delta_{1001}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.18 | 0.22 |
| 3 | 0.09 | 0.18 | 0.28 | 0.36 | 0.45 | 0.52 | 0.59 | 0.66 | 0.71 | 0.76 | **0.80** | **0.83** | **0.86** | **0.89** | **0.91** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1356: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.64 | 0.69 | 0.72 | **0.84** | **0.91** |
| 5 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1357: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.14 | 0.17 | 0.19 | 0.22 | 0.25 | 0.27 | 0.30 | 0.33 | 0.35 | 0.38 | 0.40 | 0.43 | 0.44 | 0.50 | 0.55 | 0.64 | 0.69 | 0.72 | **0.84** | **0.91** |
| 5 | 0.11 | 0.23 | 0.35 | 0.47 | 0.57 | 0.65 | 0.73 | 0.78 | **0.83** | **0.87** | **0.90** | **0.93** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.22 | 0.53 | 0.75 | **0.87** | **0.94** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.40 | **0.84** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1358: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1359: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.07 |
| 3 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.20 | 0.22 | 0.23 | 0.25 | 0.25 | 0.29 | 0.32 | 0.39 | 0.42 | 0.45 | 0.56 | 0.66 |
| 5 | 0.07 | 0.14 | 0.21 | 0.27 | 0.33 | 0.39 | 0.45 | 0.51 | 0.56 | 0.60 | 0.65 | 0.69 | 0.72 | 0.75 | 0.78 | **0.80** | **0.85** | **0.90** | **0.95** | **0.97** | **0.98** | **1.00** | **1.00** |
| 7 | 0.13 | 0.31 | 0.47 | 0.61 | 0.72 | **0.80** | **0.86** | **0.90** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.23 | 0.57 | 0.79 | **0.90** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1360: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1361: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.13 |
| 3 | 0.06 | 0.12 | 0.17 | 0.22 | 0.26 | 0.31 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.67 | 0.68 | 0.75 | **0.80** | **0.88** | **0.91** | **0.93** | **0.98** | **0.99** |
| 5 | 0.16 | 0.38 | 0.57 | 0.71 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.63 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1362: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.32 | 0.34 | 0.36 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 5 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1363: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.26 | 0.29 | 0.32 | 0.34 | 0.36 | 0.39 | 0.41 | 0.42 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 5 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1364: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1365: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.89** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.68 | 0.79 | **0.86** | **0.91** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1366: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1367: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.45 | 0.50 | 0.59 | 0.63 | 0.67 | 0.79 | **0.87** |
| 5 | 0.10 | 0.21 | 0.32 | 0.42 | 0.52 | 0.60 | 0.67 | 0.73 | 0.78 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.36 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.58 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1368: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 3 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.58 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 5 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1369: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.11 |
| 3 | 0.06 | 0.09 | 0.13 | 0.16 | 0.20 | 0.23 | 0.26 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.48 | 0.51 | 0.52 | 0.58 | 0.64 | 0.74 | 0.78 | **0.81** | **0.91** | **0.96** |
| 5 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.75 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.26 | 0.62 | **0.83** | **0.93** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1370: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 5 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.15 | 0.37 | 0.56 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1371: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 |
| 3 | 0.04 | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.16 | 0.17 | 0.19 | 0.21 | 0.23 | 0.24 | 0.26 | 0.28 | 0.29 | 0.30 | 0.34 | 0.38 | 0.46 | 0.50 | 0.53 | 0.65 | 0.75 |
| 5 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.70 | 0.74 | 0.78 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 7 | 0.15 | 0.37 | 0.56 | 0.70 | **0.80** | **0.88** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1372: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1373: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.71 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.46 | **0.89** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1374: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.28 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.67 | 0.76 | **0.80** | **0.83** | **0.92** | **0.97** |
| 5 | 0.13 | 0.29 | 0.44 | 0.58 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.65 | **0.85** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1375: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.10 | 0.11 |
| 3 | 0.06 | 0.10 | 0.13 | 0.17 | 0.20 | 0.24 | 0.28 | 0.31 | 0.34 | 0.38 | 0.41 | 0.44 | 0.47 | 0.50 | 0.53 | 0.54 | 0.61 | 0.67 | 0.76 | **0.80** | **0.83** | **0.92** | **0.97** |
| 5 | 0.13 | 0.29 | 0.44 | 0.58 | 0.68 | 0.77 | **0.83** | **0.88** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.27 | 0.65 | **0.85** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.50 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1376: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 3 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1377: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.13 | 0.16 |
| 3 | 0.07 | 0.13 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 5 | 0.18 | 0.45 | 0.66 | **0.80** | **0.89** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1378: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.50 | 0.56 | 0.62 | 0.72 | 0.76 | 0.79 | **0.89** | **0.95** |
| 5 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1379: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.30

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 |
| 3 | 0.05 | 0.09 | 0.12 | 0.16 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.34 | 0.37 | 0.40 | 0.43 | 0.46 | 0.49 | 0.50 | 0.56 | 0.62 | 0.72 | 0.76 | 0.79 | **0.89** | **0.95** |
| 5 | 0.12 | 0.27 | 0.41 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.25 | 0.60 | **0.81** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.46 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.90** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1380: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.41 | 0.50 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.33 | 0.37 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.59 | 0.62 | 0.63 | 0.70 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 7 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.59 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1381: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.23 | 0.28 | 0.30 | 0.33 | 0.41 | 0.50 |
| 5 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.28 | 0.33 | 0.37 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.59 | 0.62 | 0.63 | 0.70 | 0.75 | **0.84** | **0.87** | **0.90** | **0.96** | **0.99** |
| 7 | 0.10 | 0.22 | 0.34 | 0.45 | 0.55 | 0.63 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.17 | 0.42 | 0.62 | 0.76 | **0.86** | **0.92** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.66 | **0.86** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.42 | **0.86** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.59 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.75 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1382: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.24 | 0.28 |
| 5 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 7 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 9 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.34 | 0.77 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1383: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| 3 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | 0.19 | 0.24 | 0.28 |
| 5 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.23 | 0.26 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.37 | 0.42 | 0.47 | 0.56 | 0.60 | 0.64 | 0.76 | **0.85** |
| 7 | 0.07 | 0.14 | 0.20 | 0.26 | 0.32 | 0.37 | 0.43 | 0.48 | 0.53 | 0.58 | 0.62 | 0.66 | 0.70 | 0.73 | 0.76 | 0.77 | **0.83** | **0.88** | **0.94** | **0.96** | **0.97** | **0.99** | **1.00** |
| 9 | 0.11 | 0.24 | 0.36 | 0.48 | 0.58 | 0.67 | 0.74 | **0.80** | **0.84** | **0.88** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.16 | 0.39 | 0.59 | 0.73 | **0.83** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.34 | 0.77 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.47 | **0.90** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | 0.73 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1384: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 5 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1385: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 | 0.35 | 0.36 | 0.41 | 0.46 | 0.55 | 0.59 | 0.63 | 0.75 | **0.84** |
| 5 | 0.09 | 0.19 | 0.29 | 0.39 | 0.48 | 0.56 | 0.63 | 0.69 | 0.74 | 0.79 | **0.83** | **0.86** | **0.89** | **0.91** | **0.93** | **0.93** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.18 | 0.44 | 0.65 | 0.79 | **0.88** | **0.94** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.33 | 0.75 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.91** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1386: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.38 | 0.47 | 0.56 |
| 5 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.63 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 7 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1387: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.04 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.21 | 0.24 | 0.27 | 0.32 | 0.35 | 0.38 | 0.47 | 0.56 |
| 5 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.42 | 0.47 | 0.51 | 0.55 | 0.59 | 0.63 | 0.66 | 0.69 | 0.70 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 7 | 0.11 | 0.26 | 0.39 | 0.52 | 0.62 | 0.71 | 0.78 | **0.83** | **0.88** | **0.91** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.20 | 0.48 | 0.69 | **0.83** | **0.91** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.32 | 0.73 | **0.91** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.48 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1388: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.41 | 0.49 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1389: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.33 | 0.37 | 0.41 | 0.49 | 0.53 | 0.57 | 0.69 | 0.79 |
| 5 | 0.09 | 0.18 | 0.26 | 0.35 | 0.43 | 0.50 | 0.57 | 0.63 | 0.69 | 0.73 | 0.77 | **0.81** | **0.84** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 7 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1390: Power Table for $\delta_{0110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.51 |
| 5 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 7 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.43 | 0.63 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1391: Power Table for $\delta_{0101}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.30

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 |
| 3 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.21 | 0.24 | 0.29 | 0.31 | 0.33 | 0.42 | 0.51 |
| 5 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 | 0.46 | 0.50 | 0.53 | 0.57 | 0.60 | 0.63 | 0.65 | 0.71 | 0.77 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 7 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.65 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.96** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.18 | 0.43 | 0.63 | 0.78 | **0.87** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.28 | 0.67 | **0.87** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.88** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1392: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1393: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1394: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1395: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1396: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1397: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1398: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1399: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1400: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.30 | 0.36 |
| 3 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1401: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.30 | 0.36 |
| 3 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1402: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1403: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1404: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.32 |
| 3 | 0.12 | 0.26 | 0.40 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1405: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.18 |
| 3 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1406: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.67 | 0.71 | 0.76 | 0.79 | **0.83** | **0.85** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1407: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 5 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.31 | 0.72 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1408: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1409: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | $n$ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 3 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1410: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 3 | 0.12 | 0.27 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1411: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.45 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1412: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.26 | 0.28 | 0.30 | 0.38 | 0.45 |
| 3 | 0.16 | 0.38 | 0.57 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1413: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.43 | 0.53 | 0.61 | 0.69 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1414: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1415: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 5 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1416: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.64 | 0.71 | 0.77 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1417: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.64 | 0.71 | 0.77 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1418: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.39 | 0.40 | 0.46 | 0.51 | 0.60 | 0.64 | 0.68 | **0.80** | **0.88** |
| 5 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1419: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.39 | 0.40 | 0.46 | 0.51 | 0.60 | 0.64 | 0.68 | **0.80** | **0.88** |
| 5 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1420: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.13 | 0.14 | 0.18 | 0.21 |
| 3 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.57 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1421: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.13 | 0.14 | 0.18 | 0.21 |
| 3 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.57 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1422: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 3 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.63 | 0.66 | 0.69 | 0.71 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 5 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1423: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 3 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.63 | 0.66 | 0.69 | 0.71 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 5 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1424: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.69 | 0.74 | 0.77 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1425: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.69 | 0.74 | 0.77 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1426: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.69 | 0.79 | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1427: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.69 | 0.79 | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1428: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1429: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1430: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1431: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1432: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1433: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1434: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1435: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1436: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.30 | 0.36 |
| 3 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1437: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.30 | 0.36 |
| 3 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1438: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1439: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1440: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.32 |
| 3 | 0.12 | 0.26 | 0.40 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1441: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.18 |
| 3 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1442: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.67 | 0.71 | 0.76 | 0.79 | **0.83** | **0.85** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1443: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 5 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.31 | 0.72 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1444: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1445: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 3 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1446: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 3 | 0.12 | 0.27 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1447: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.45 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1448: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.26 | 0.28 | 0.30 | 0.38 | 0.45 |
| 3 | 0.16 | 0.38 | 0.57 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 1449: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.43 | 0.53 | 0.61 | 0.69 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 1450: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1451: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 5 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1452: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.64 | 0.71 | 0.77 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1453: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.20 | 0.25 | 0.29 | 0.33 | 0.38 | 0.42 | 0.46 | 0.49 | 0.53 | 0.57 | 0.60 | 0.63 | 0.64 | 0.71 | 0.77 | **0.85** | **0.88** | **0.91** | **0.97** | **0.99** |
| 5 | 0.15 | 0.35 | 0.53 | 0.68 | 0.78 | **0.86** | **0.91** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.60 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1454: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.39 | 0.40 | 0.46 | 0.51 | 0.60 | 0.64 | 0.68 | **0.80** | **0.88** |
| 5 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1455: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.10 | 0.13 | 0.15 | 0.18 | 0.20 | 0.23 | 0.25 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.39 | 0.40 | 0.46 | 0.51 | 0.60 | 0.64 | 0.68 | **0.80** | **0.88** |
| 5 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1456: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.13 | 0.14 | 0.18 | 0.21 |
| 3 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.57 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1457: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | 0.13 | 0.14 | 0.18 | 0.21 |
| 3 | 0.09 | 0.18 | 0.27 | 0.35 | 0.43 | 0.51 | 0.57 | 0.64 | 0.69 | 0.74 | 0.78 | **0.82** | **0.85** | **0.87** | **0.89** | **0.90** | **0.94** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** |
| 5 | 0.25 | 0.60 | **0.82** | **0.92** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.56 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.87** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1458: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 3 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.63 | 0.66 | 0.69 | 0.71 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 5 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1459: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.12 | 0.14 |
| 3 | 0.07 | 0.12 | 0.17 | 0.23 | 0.28 | 0.33 | 0.38 | 0.43 | 0.47 | 0.51 | 0.55 | 0.59 | 0.63 | 0.66 | 0.69 | 0.71 | 0.77 | **0.82** | **0.90** | **0.92** | **0.94** | **0.98** | **1.00** |
| 5 | 0.16 | 0.40 | 0.59 | 0.74 | **0.84** | **0.90** | **0.94** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.37 | **0.81** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.66 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.89** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1460: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.69 | 0.74 | 0.77 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1461: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.12 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.08 | 0.16 | 0.24 | 0.32 | 0.40 | 0.47 | 0.53 | 0.59 | 0.65 | 0.69 | 0.74 | 0.77 | **0.81** | **0.84** | **0.86** | **0.87** | **0.92** | **0.95** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.23 | 0.56 | 0.78 | **0.90** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.52 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1462: Power Table for $\delta_{0011}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.69 | 0.79 | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1463: Power Table for $\delta_{1110}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.16 | 0.21 | 0.25 | 0.30 | 0.34 | 0.39 | 0.43 | 0.47 | 0.51 | 0.54 | 0.58 | 0.61 | 0.64 | 0.66 | 0.72 | 0.78 | **0.86** | **0.89** | **0.92** | **0.97** | **0.99** |
| 5 | 0.15 | 0.36 | 0.54 | 0.69 | 0.79 | **0.87** | **0.92** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.34 | 0.76 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.61 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1464: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1465: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.22 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.44 | 0.54 | 0.62 | 0.69 | 0.75 | **0.80** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.96** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.72 | **0.91** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1466: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1467: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.17 |
| 3 | 0.07 | 0.14 | 0.21 | 0.28 | 0.34 | 0.40 | 0.46 | 0.52 | 0.57 | 0.62 | 0.66 | 0.70 | 0.74 | 0.77 | **0.80** | **0.81** | **0.87** | **0.91** | **0.96** | **0.97** | **0.98** | **1.00** | **1.00** |
| 5 | 0.20 | 0.49 | 0.70 | **0.84** | **0.92** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1468: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1469: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.16 | 0.18 | 0.21 | 0.23 | 0.24 | 0.31 | 0.37 |
| 3 | 0.13 | 0.31 | 0.48 | 0.61 | 0.72 | **0.80** | **0.86** | **0.91** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.45 | **0.89** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.86** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1470: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1471: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.25 |
| 3 | 0.10 | 0.21 | 0.32 | 0.43 | 0.52 | 0.61 | 0.68 | 0.74 | 0.79 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.30 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.67 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1472: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.30 | 0.36 |
| 3 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1473: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.14 | 0.15 | 0.17 | 0.20 | 0.22 | 0.23 | 0.30 | 0.36 |
| 3 | 0.13 | 0.30 | 0.46 | 0.59 | 0.70 | 0.78 | **0.85** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.43 | **0.87** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1474: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1475: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,1), W_{ijkl} \sim N(0,1), Z_{ijkl} \sim N(0,1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.20 | 0.24 |
| 3 | 0.10 | 0.20 | 0.31 | 0.40 | 0.50 | 0.58 | 0.65 | 0.71 | 0.76 | **0.81** | **0.85** | **0.88** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.29 | 0.68 | **0.88** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.64 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1476: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.18 | 0.19 | 0.21 | 0.26 | 0.32 |
| 3 | 0.12 | 0.26 | 0.40 | 0.53 | 0.64 | 0.72 | 0.79 | **0.85** | **0.89** | **0.92** | **0.94** | **0.96** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.38 | **0.82** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1477: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.18 |
| 3 | 0.08 | 0.15 | 0.23 | 0.30 | 0.37 | 0.44 | 0.50 | 0.56 | 0.61 | 0.66 | 0.70 | 0.74 | 0.78 | **0.81** | **0.83** | **0.85** | **0.90** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.21 | 0.53 | 0.74 | **0.87** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.49 | **0.92** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.81** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1478: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.12 | 0.13 | 0.14 | 0.17 | 0.20 |
| 3 | 0.08 | 0.17 | 0.25 | 0.33 | 0.41 | 0.48 | 0.55 | 0.61 | 0.67 | 0.71 | 0.76 | 0.79 | **0.83** | **0.85** | **0.88** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** |
| 5 | 0.24 | 0.58 | **0.80** | **0.91** | **0.96** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1479: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.06 | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 | 0.43 | 0.47 | 0.50 | 0.54 | 0.57 | 0.60 | 0.61 | 0.68 | 0.74 | **0.83** | **0.86** | **0.89** | **0.96** | **0.98** |
| 5 | 0.14 | 0.33 | 0.50 | 0.65 | 0.75 | **0.83** | **0.89** | **0.93** | **0.95** | **0.97** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.31 | 0.72 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1480: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.20 | 0.23 | 0.27 | 0.29 | 0.32 | 0.40 | 0.48 |
| 3 | 0.17 | 0.41 | 0.60 | 0.75 | **0.85** | **0.91** | **0.95** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1481: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.16 | 0.17 | 0.18 | 0.23 | 0.27 |
| 3 | 0.10 | 0.23 | 0.35 | 0.46 | 0.56 | 0.64 | 0.72 | 0.78 | **0.83** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.97** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.33 | 0.75 | **0.92** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.71 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1482: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 | 0.14 | 0.16 | 0.19 | 0.20 | 0.22 | 0.27 | 0.33 |
| 3 | 0.12 | 0.27 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.96** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.39 | **0.83** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1483: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, \sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2) v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.16 | 0.19 |
| 3 | 0.08 | 0.16 | 0.24 | 0.31 | 0.39 | 0.45 | 0.52 | 0.58 | 0.63 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.85** | **0.86** | **0.91** | **0.94** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** |
| 5 | 0.22 | 0.54 | 0.76 | **0.89** | **0.95** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.82** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1484: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.19 | 0.21 | 0.26 | 0.28 | 0.30 | 0.38 | 0.45 |
| 3 | 0.16 | 0.38 | 0.57 | 0.72 | **0.82** | **0.89** | **0.93** | **0.96** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.54 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 1485: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 1.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | $n$ | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.21 | 0.26 |
| 3 | 0.10 | 0.22 | 0.33 | 0.43 | 0.53 | 0.61 | 0.69 | 0.75 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.95** | **0.96** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.31 | 0.71 | **0.90** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.68 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 1486: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.15 | 0.17 | 0.19 | 0.20 | 0.25 | 0.30 |
| 3 | 0.11 | 0.26 | 0.39 | 0.51 | 0.62 | 0.70 | 0.77 | **0.83** | **0.87** | **0.91** | **0.93** | **0.95** | **0.96** | **0.97** | **0.98** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 5 | 0.37 | **0.80** | **0.95** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.76 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 1487: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0, 0.5), X_{ijkl} \sim N(0, 1), W_{ijkl} \sim N(0, 1), Z_{ijkl} \sim N(0, 1)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 2\sigma_e^2), r \sim N(0, \sigma_e^2), u \sim N(0, \sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $n$ | | | | | | | | | | | | | | |
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.12 | 0.15 | 0.17 |
| 3 | 0.08 | 0.15 | 0.22 | 0.29 | 0.36 | 0.42 | 0.48 | 0.54 | 0.59 | 0.64 | 0.68 | 0.72 | 0.76 | 0.79 | **0.82** | **0.83** | **0.88** | **0.92** | **0.96** | **0.98** | **0.98** | **1.00** | **1.00** |
| 5 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.47 | **0.91** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.79 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

$g = h$

Table 1488: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.64 | 0.77 | **0.85** |
| 5 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1489: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,8\sigma_e^2), r \sim N(0,4\sigma_e^2), u \sim N(0,2\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| $g = h$ | $n$ | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 |
| 3 | 0.05 | 0.07 | 0.10 | 0.12 | 0.14 | 0.17 | 0.19 | 0.21 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 0.35 | 0.37 | 0.38 | 0.43 | 0.48 | 0.57 | 0.61 | 0.64 | 0.77 | **0.85** |
| 5 | 0.09 | 0.20 | 0.30 | 0.40 | 0.49 | 0.57 | 0.64 | 0.71 | 0.76 | **0.80** | **0.84** | **0.87** | **0.90** | **0.92** | **0.94** | **0.94** | **0.97** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.19 | 0.46 | 0.67 | **0.81** | **0.89** | **0.94** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.35 | 0.77 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.56 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.77 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.92** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1490: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.37 | 0.40 | 0.51 | 0.60 |
| 5 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 7 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.34 | 0.77 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1491: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0, 8\sigma_e^2), r \sim N(0, 4\sigma_e^2), u \sim N(0, 2\sigma_e^2), v \sim N(0, \sigma_e^2)$, Effect Size = 0.70

| $g = h$ \ $n$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| 3 | 0.04 | 0.06 | 0.07 | 0.08 | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.26 | 0.29 | 0.35 | 0.37 | 0.40 | 0.51 | 0.60 |
| 5 | 0.07 | 0.13 | 0.19 | 0.24 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | 0.55 | 0.59 | 0.63 | 0.66 | 0.70 | 0.73 | 0.74 | **0.80** | **0.85** | **0.92** | **0.94** | **0.96** | **0.99** | **1.00** |
| 7 | 0.12 | 0.28 | 0.42 | 0.55 | 0.66 | 0.74 | **0.81** | **0.86** | **0.90** | **0.93** | **0.95** | **0.97** | **0.98** | **0.98** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.34 | 0.77 | **0.93** | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.51 | **0.93** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | 0.70 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.85** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **0.94** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1492: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.64 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.96** | **0.99** |
| 5 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1493: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.11 | 0.13 |
| 3 | 0.06 | 0.11 | 0.15 | 0.20 | 0.24 | 0.29 | 0.33 | 0.37 | 0.41 | 0.45 | 0.49 | 0.52 | 0.56 | 0.59 | 0.62 | 0.64 | 0.70 | 0.76 | **0.85** | **0.88** | **0.90** | **0.96** | **0.99** |
| 5 | 0.15 | 0.35 | 0.53 | 0.67 | 0.78 | **0.85** | **0.90** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.32 | 0.74 | **0.92** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.59 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.84** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.97** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1494: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.27 | 0.29 | 0.32 | 0.34 | 0.37 | 0.39 | 0.41 | 0.43 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 5 | 0.10 | 0.23 | 0.34 | 0.45 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1495: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2) v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 |
| 3 | 0.05 | 0.08 | 0.11 | 0.13 | 0.16 | 0.19 | 0.21 | 0.24 | 0.27 | 0.29 | 0.32 | 0.34 | 0.37 | 0.39 | 0.41 | 0.43 | 0.48 | 0.53 | 0.63 | 0.67 | 0.71 | **0.82** | **0.90** |
| 5 | 0.10 | 0.23 | 0.34 | 0.45 | 0.55 | 0.64 | 0.71 | 0.77 | **0.82** | **0.86** | **0.89** | **0.92** | **0.94** | **0.95** | **0.96** | **0.97** | **0.98** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.21 | 0.51 | 0.73 | **0.86** | **0.93** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.39 | **0.83** | **0.96** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.62 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.83** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1496: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 5 | 0.14 | 0.32 | 0.49 | 0.63 | 0.73 | **0.82** | **0.87** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1497: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 1.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 |
| 3 | 0.06 | 0.10 | 0.14 | 0.18 | 0.22 | 0.26 | 0.30 | 0.34 | 0.38 | 0.41 | 0.45 | 0.48 | 0.52 | 0.55 | 0.58 | 0.59 | 0.66 | 0.72 | **0.81** | **0.84** | **0.87** | **0.95** | **0.98** |
| 5 | 0.14 | 0.32 | 0.49 | 0.63 | 0.73 | **0.82** | **0.87** | **0.92** | **0.94** | **0.96** | **0.98** | **0.99** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.30 | 0.70 | **0.89** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.55 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | **0.80** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | **0.95** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1498: Power Table for $\delta_{0111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 |
| 3 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.29 | 0.31 | 0.33 | 0.35 | 0.37 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 5 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.66 | 0.72 | 0.77 | **0.82** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 100 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |

Table 1499: Power Table for $\delta_{1111}$ Predictor Distributions by Level $A_{ijkl} \sim N(0,1), X_{ijkl} \sim N(0,0.5), W_{ijkl} \sim N(0,0.5), Z_{ijkl} \sim N(0,0.5)$, eI= 2.00, Error Distribution by Level $e \sim N(0,2\sigma_e^2), r \sim N(0,\sigma_e^2), u \sim N(0,\sigma_e^2), v \sim N(0,\sigma_e^2)$, Effect Size = 0.70

| | $n$ | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $g = h$ | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 30 | 35 | 40 | 50 | 55 | 60 | 80 | 100 |
| 1 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 |
| 3 | 0.05 | 0.08 | 0.10 | 0.12 | 0.15 | 0.17 | 0.19 | 0.22 | 0.24 | 0.26 | 0.29 | 0.31 | 0.33 | 0.35 | 0.37 | 0.39 | 0.44 | 0.49 | 0.58 | 0.62 | 0.66 | 0.78 | **0.86** |
| 5 | 0.10 | 0.20 | 0.31 | 0.41 | 0.50 | 0.58 | 0.66 | 0.72 | 0.77 | **0.82** | **0.85** | **0.88** | **0.91** | **0.93** | **0.94** | **0.95** | **0.97** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 7 | 0.19 | 0.47 | 0.68 | **0.82** | **0.90** | **0.95** | **0.97** | **0.99** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 9 | 0.35 | 0.78 | **0.94** | **0.99** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 11 | 0.57 | **0.96** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 13 | 0.78 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 15 | **0.93** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 17 | **0.98** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 19 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 21 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 23 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 25 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 27 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 29 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 30 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 35 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 40 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 50 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 55 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 60 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
| 80 | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** | **1.00** |
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# Bibliography


1. "Air Force Distributed Common Ground System, howpublished = `https://en.wikipedia.org/wiki/Distributed_Common_Ground_System`, note = Accessed: 2019-05-14".

2. "Air Force Distributed Common Ground System, howpublished = `https://www.af.mil/About-Us/Fact-Sheets/Display/Article/104525/air-force-distributed-common-ground-system/`, note = Accessed: 2019-05-14".

3. Task Force Report: The Role of Autonomy in DoD Systems. Technical report, Department of Defense, Washington, D.C., July 2012.

4. Air Force Research Laboratory Autonomy Science and Technology Strategy. Technical Report 88ABW-2013-5023, Air Force Research Laboratory, December 2013.

5. Technology Horizons: A Vision for Air Force Science and Technology Vision. Technical Report UFC 4-211-01N, Office of the U.S. Air Force Chief Scientist, June 2013.

6. Arend, Matthias G and Thomas Schäfer. "Statistical power in two-level models: A tutorial based on Monte Carlo simulation." Psychological methods, 24(1):1, 2019.

7. Bell, Morgan Grant B. Kromrey Jeffery D. Ferron John M., Bethany A. "The Impact of Small Cluster Size on Multilevel Models: A Monte Carlo Examination of Two-Level Models with Binary and Continuous Predictors". JSM: Section on Survey Methods, 2010.

8. Busing, F. "Distribution Characteristics of Variance Estimates in Two-Level Models." Department of Psychimetrica and Research Methodology, Leiden University, Leiden, 1993.

9. Casella, G. and R. L. Berger. Statistical Inference. Wadsworth and Brooks/Cole, Pacific Grove, CA, 2002.

10. Chou, C.P., P.M. Bentler, and M.A. Pentz. Two-Stage Approach to Multilevel Structural Equation Models: Application to Longitudinal Data. In: T.D., Schnabel, A J. Baumert (Eds.), Modeling Longitudinal and Multilevel Data. Mahwah, NJ:Erbaum, 2000.

11. Cohen, Jacob. Statistical Power Analysis for the Behavioral Sciences. Lawrence Earlbaum Associates, Hillsdale, NJ, 1988.

12. Erwin, R. Scott and Paul Zetocha. Spacecraft Autonomy Techonology: A Survey. Technical report, AFRL/RV, Kirtland AFB, NM.

13. Fairweather, Peter G. "Statistical power and design requirements for environmental monitoring". Marine and freshwater research, 42(5):555–567, 1991.

14. Ferron, John, Melinda R. Hess, Kris Y. Hogarty, Robert F. Dedrick, Jeffery D. Kromrey, Thomas R. Lang, and John Niles. Hierarchical Linear Modeling: A Review of Methodological Issues and Applications. Technical report, University of South Florida, April 2004.

15. Goldstein, H. "Multilevel Mixed Linear Model Analysis Using Iterative Generalized Least Squares". Biometrika, 73:43–56, 1986.

16. Goldstein, Harvey. Multilevel Statistical Models. London: Edwards Arnold, New York: Halstead, 2 edition, 1995.

17. Haas, Marco and Ad Kleingeld. "Multilevel Design of Performance Measurement Systems: Enhancing Strategic Dialogue Throughout the Organization". Management Accounting Research, 10:233–261, 1999.

18. Hoffman, D. A. "An Overview of the Logic and Rational of Hierarchical Linear Models". Journal of Management, 23:723–744, 1997.

19. Hox, J. Multilevel Analysis: Techniques and Applications. Mahwah, NJ:Erlbaum, 2002.

20. Hox, J. J. Multilevel Modeling: When and Why. In I. Balderjahn, R. Mathar M. Schader (Eds.), New York: Springer Verlag, 1998.

21. Hox, J. J. Quantitative Methodology Series. Multilevel Analysis: Techniques and Applications. Routledge/Taylor Francis Group, New York, NY, US, 2010.

22. Jessaca Spybrook, Richard Congdon Carolyn Hill Andres Martinez, Howard Bloom and Stephen Raudenbush. Optimal Design Plus Empirical Evidence: Documentation for the "Optimal Design" Software. Technical report, October 2011.

23. Kreft, I. G. G. and J. J. De Leeuw. "Introducing Multilevel Modeling". SAGE, 1998.

24. Kutner, Christopher J. Nachtsheim John Neter, Michael H. and William Li. Applied Linear Statistical Models. McGraw Hill Education (India), 2005.

25. Van der Leeden, R. and F. Busing. "First Iteration versus IGLS/RIGLS Estimates in Two-Level Models: a Monte Carlo Study with ML3". Department of Psychimetrica and Research Methodology, Leiden University, Leiden, 1994.

26. Linda, N.Y., S.Y. Lee, and W.Y. Poon. "Covariance Structure Analysis with Three Level Data". Computational Statistics & Data Analysis, 15:159–178, 1993.

27. Maas, C. J. M. and J. J. Hox. "Robustness Issues in Multilevel Regression Modeling". Statistica Neerlandica, 58, 2004.

28. Maas, Cora J. M. and Joop J. Hox. "Sufficient Sample Sizes for Multilevel Modeling". Methodology, 1:86–92, 2005.

29. MathWorks. "Fit Linear Mixed-Effects Model", 2019. URL `https://www.mathworks.com/help/stats/fitlme.html`.

30. McCoach, D. Betsy and O'Connell Ann A. Hierarchical Linear Modeling (HLM). Technical report, University of Connecticut, June 2016.

31. McDonald, R.P. and H. Goldstein. "Balanced and Unbalanced Designs for Linear Structural Relations in Two-Level Data". British Journal of Mathematical and Statistical Psychology, 42:215–232, 1989.

32. McGraw, Kenneth O and Seok P Wong. "Forming inferences about some intraclass correlation coefficients." Psychological methods, 1(1):30, 1996.

33. Mok, M. "Sample Size Requirements for 2-Level Designs in Educational Research." Unpublished manuscript, 1995.

34. Poon, W.-Y. and S.-Y. Lee. "Maximum Likelihood and Generalized Least Squares Analyses of Two-Level Structural Equation Models". Statistics and Probability Letters, 14:25–30, 1992.

35. Raudenbush, Stephen W. and Bryk Anthony S. Hierarchical Linear Models: Applications and Data Analysis Methods. 2002. ISBN 978-0-7619-1904-9.

36. Raudenbush, Stephen W. and Liu Xiao-Feng. "Effects of Study Duration, Frequency of Observation, and Sample Size on Power in Studies of Group Differences in Polynomial Change". Psychological Methods, 6:387–401, 2001.

37. Raudenbush, S.W. "Maximum Likelihood Estimation for Unbalanced Multilevel Covariance Structure Models Via the EM Algorithm". British Journal of Mathematical and Statistical Psychology, 48:359–370, 1995.

38. Scherbaum, Charles and Jennifer Ferreter. "Estimating Statistical Power and Required Sample Sizes for Organizational Research Using Multilevel Modeling". SAGE Journal, 12(2):347–367, 2008.

39. Searle, G. Casella, S. R. and C. E. McCulloch. Variance Components. New York: Wiley, 1992.

40. Snijders, T. A. B. and R. Bosker. "Modeled Variance in Two-Level Models". Journal of Educational Statistics, 18, 1994.

41. Snijders, Tom A. B. "Power and Sample Size in Multivariate Modeling". Encyclopedia of Statistics in Behavioral Science, 3:1570–1573, 2005.

42. Snijders, Tom A. B. and Roel J. Bosker. Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling. 2012. ISBN 978-1-84920-200-8.

43. Spss, INC. "MATLAB version 16.0". Chicago, IL: SPSS Incorporated, 2007.

44. Ullman, Jodie B and Peter M Bentler. "Structural equation modeling". Handbook of psychology, 607–634, 2003.

45. Woltman, Heather, Andrea Feldstain, J. Christine MacKay, and Meredith Rocchi. "An Introduction to Hierarchical Linear Modeling". Tutorials in Quantitative Methods for Psychology, 8(1):52–69, 2012.

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**14. ABSTRACT**

Hierarchical Linear Models (HLMs), also known as multi-level models, are an extension of multiple regression analysis and can aid in the understanding of human and machine workloads of a system. These models allow for prediction and testing in systems with hierarchies of two or more levels. The complex interrelated variability of these multi-level models exists in operational settings, such as the Air Force Distributed Common Ground System Full Motion Video (AF DCGS FMV) community which is composed of individuals (Level-1), groups (Level-2), units (Level-3), and organizations (Level-4). Through the development of sample size requirements and considerations for multi-level models, this research determined necessary requirements and strategies to assess human-machine system performance based requests for statistical testing and evaluation. This research compares sample size recommendations to previous Level-2 HLM recommendations and extends recommendations to Level-3 and Level-4 HLMs based on varying effect sizes, level predictor variance, and error variance scenarios. Depending on the application, results demonstrate that sample size requirements may be smaller than what literature previously reported. Further, when sample size requirements cannot be met, this research develops and assesses re-sampling methods as a means to augment small samples for estimation. The operational community, DCGS FMV, has a small population of 1,000 and limited access to analysts. This research provides distributions based on Subject Matter Expert (SME) opinion for re-sampling methods to the DCGS FMV Level-3 and Level-4 HLMs. These findings provide a foundation on which sample size recommendations and extrapolation techniques for HLM are made. Such recommendations and techniques with SME input provide simulation based HLM assessments that can give initial recommendations with limited associated cost, analyst and researcher time, and resources. These are initial steps towards advancing the Air Force's capabilities and mission understanding for human-machine based systems.

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